



United States  
Department of  
Agriculture



NRCS

Natural  
Resources  
Conservation  
Service

In cooperation with  
the Mississippi State University  
College of Agricultural and  
Environmental Sciences,  
Agricultural Experiment Station

# Soil Survey of Wayne County, Mississippi





# How To Use This Soil Survey

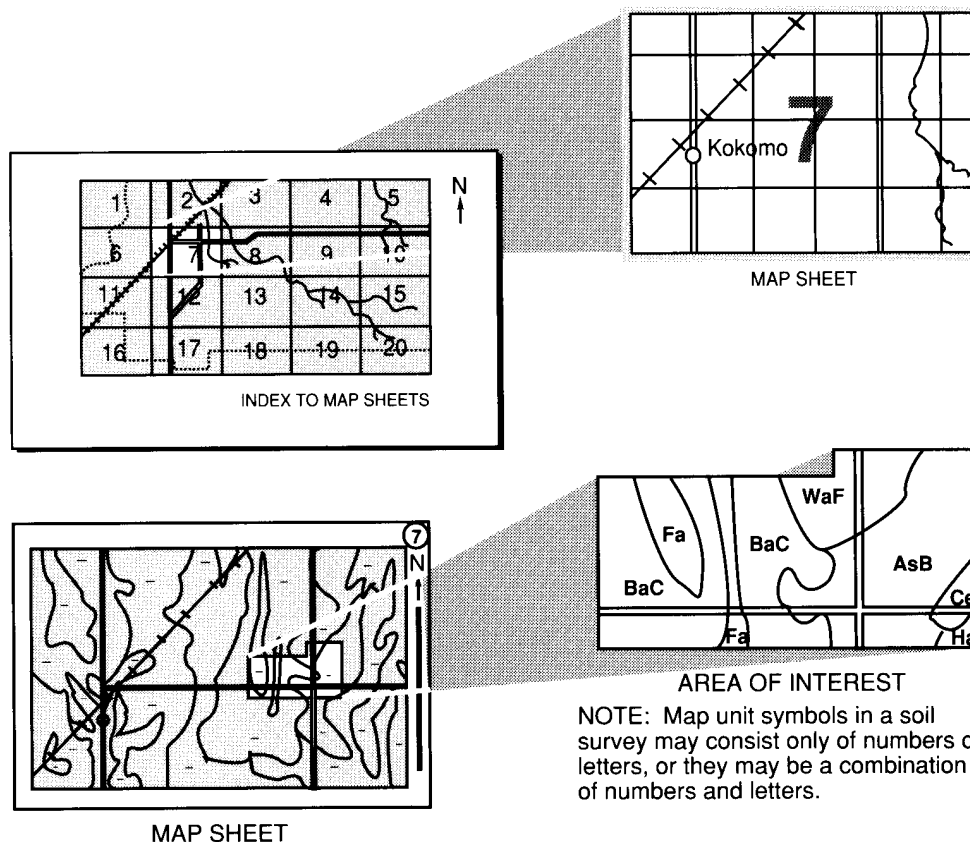
## Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



## National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service and the Mississippi State University College of Agricultural and Environmental Sciences, Agricultural Experiment Stations. The survey is part of the technical assistance furnished to the Wayne County Soil and Water Conservation District.

Major fieldwork for this soil survey was completed in 2007. Soil names and descriptions were approved in 2007. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2007. The most current official data are available at <http://websoilsurvey.nrcs.usda.gov/app/>.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

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The correct citation for this survey is:

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## Cover Caption

Maynor Creek Lake, which is located 6 miles west of Waynesboro. The lake and water park provide recreational opportunities, including fishing, boating, and camping. An area of Trebloc silt loam, ponded, is in the foreground.

*Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at <http://www.nrcs.usda.gov>.*

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# Foreword

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This soil survey contains information that affects land use planning in the survey area. It contains predictions of soil behavior for selected land uses. The survey also highlights soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. Farmers, ranchers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://soils.usda.gov/contact/state\\_offices/](http://soils.usda.gov/contact/state_offices/)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.



Homer L. Wilkes  
State Conservationist  
Natural Resources Conservation Service



# Soil Survey of Wayne County, Mississippi

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By Ralph Thornton

Fieldwork by Ralph Thornton, Christopher Hatcher, Grant Martin, Michael Williams, James Curtis, Melvin Lee, Steve Monteith, Rachel Stout-Evans, Willie Terry, Dwain Daniels, Charlie Breland, Margaret Rice, and Tom Kilpatrick

United States Department of Agriculture,  
Natural Resources Conservation Service,  
in cooperation with  
the Mississippi State University College of Agricultural and  
Environmental Sciences, Agricultural Experiment Stations

WAYNE COUNTY is located on the eastern edge of southern Mississippi among the lush pine and hardwood forests of the Chickasawhay River Basin (fig. 1). It contains one incorporated city and one town. The City of Waynesboro, the largest population center and county seat, is at the intersection of U.S. Highways 84 and 45. It is 193.4 feet above mean sea level. As of 2000, the population of the county was 21,216 (USDC, 2009).

## General Nature of the County

Wayne County is rural. Tree farming is replacing the production of food crops and cotton in many parts of the county, and the shifting of jobs from farm to industry is a continuing trend. The topography in Wayne County is rugged. In some localized areas, a karst topography has developed because of the underlying limestone formations. An area of gently rolling prairie underlain by the Yazoo Formation is in the northeast part of the county. The flat areas are mostly confined to the recent alluvial plains and, in some instances, the older elevated terraces. The highest elevation in the county is about 480 feet. The location of the highest point is northeast of Eucutta near the Clarke County line. The lowest elevations in the county are about 100 feet. They are in the Chickasawhay River Valley south of Buckatunna.

## Climate

Prepared by the Natural Resources Conservation Service National Water and Climate Center, Portland, Oregon.

The climate tables were created using data from a climate station at Waynesboro, Mississippi. Thunderstorm days, relative humidity, percent sunshine, and wind information were estimated from the first order station at Meridian, Mississippi.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Waynesboro in the period 1971 to 2000. Table 2 shows probable dates of the first

## Soil Survey of Wayne County, Mississippi

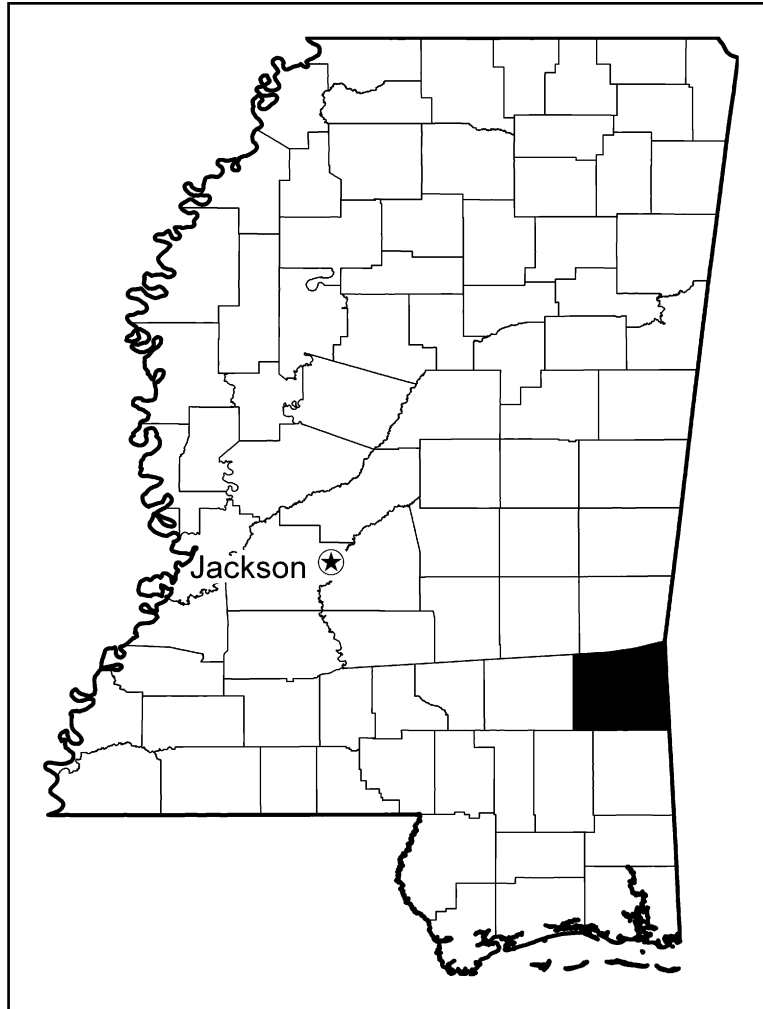


Figure 1.—Location of Wayne County in Mississippi.

freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 49.1 degrees F and the average daily minimum temperature is 36.7 degrees. The lowest temperature on record, which occurred at Waynesboro on January 21, 1985, is 0 degrees. In summer, the average temperature is 79.4 degrees and the average daily maximum temperature is 91.4 degrees. The highest temperature, which occurred at Waynesboro on July 14, 1980, is 106 degrees.

Growing degree days are shown in Table 1. They are equivalent to “heat units.” During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is about 58.43 inches. Of this, about 30.43 inches, or 52 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 7.02 inches at Waynesboro on October 21, 1959. Thunderstorms occur on about 58 days each year and are most common in July.

The average seasonal snowfall is 0.4 inch. The greatest snow depth at any one time during the period of record was 4 inches recorded on February 23, 1968. In most years, 0 days have at least 1 inch of snow on the ground. The heaviest 1-day snowfalls on record were 10 inches recorded in December 1963 and 9 inches in March 1993.

The average relative humidity in mid-afternoon is about 55 percent. Humidity is higher at night, and the average at dawn is about 90 percent. The sun shines 68 percent of the time possible in summer and 49 percent in winter. The prevailing wind is from the south-southwest. Average wind speed is highest, 7.5 miles per hour, in February and March.

## **History**

The county was named in honor of General Anthony “Mad Anthony” Wayne, who earned his nickname as a result of exploits during the revolutionary war. The first settlers to Wayne County came from North and South Carolina. Many of them were of Scottish descent. The original inhabitants of the country were dubbed “Chickasawhay settlers.” The name was derived from the Chickasawhay River, the primary waterway in the area. In all, 13 counties have been carved out of the original Wayne County. With the exception of Lawrence County, Wayne County provided the largest number of settlers to the new counties.

Wayne County is bordered on the north by Clark County, Mississippi; on the south by Greene County, Mississippi; on the southwest by Perry County, Mississippi; on the west by Jones County, Mississippi; on the northeast by Choctaw County, Alabama; on the southeast by Washington County, Alabama; and on the northwest by Jasper County, Mississippi. The maximum width of the county is 29 miles, and the maximum length is about 31.5 miles. The county has a total area of 814 square miles, of which 810 square miles is land and 3 square miles is water. Wayne County is the third largest county in Mississippi. The county consists of 520,600 total acres, including 430,000 acres of private land, 90,200 acres of federal land, and 400 acres of census water.

## **Agriculture and Commerce**

Agriculture is a major economic enterprise in the county. The main crops are corn, soybeans, peanuts, hay, and blueberries. Other enterprises include livestock and poultry production. Natural resources include oil sand, gravel, and timber. The industrial base is anchored by apparel, poultry, and forest products. Wayne County has an abundance and variety of wildlife, including white-tailed deer, wild turkey, dove, and squirrel. Deer are the most popular wildlife for hunting. The average size lease for hunting is 2,500 to 3,000 acres.

The county is served by three major highways: State Highway 63, which runs south from Waynesboro to the Mississippi Gulf Coast; U.S. Highway 45, which runs north and southeast; and U.S. Highway 84, which runs east and west.

## **How This Survey Was Made**

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

## Soil Survey of Wayne County, Mississippi

The soils and miscellaneous areas in the survey area are in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept or model of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Detailed Soil Map Units

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The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a soil series. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into soil phases. Most of the areas shown on the

detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Boswell fine sandy loam, 5 to 12 percent slopes, eroded, is a phase of the Boswell series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes. A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Brantley-Okeelala complex, 5 to 15 percent slopes, eroded, is an example.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. The areas of pits in the Pits-Udorthents complex is an example.

Table 4 gives the acreage and proportionate extent of each map unit. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils or miscellaneous areas.

## **AgB—Alaga fine sand, 0 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* High stream terraces

*Landform position:* Convex slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 300 acres

### ***Composition***

Alaga and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 6 inches—dark grayish brown fine sand

*Substratum:*

6 to 10 inches—yellowish brown loamy sand

10 to 26 inches—yellowish brown sand

26 to 31 inches—brownish yellow sand

31 to 42 inches—yellow fine sand

42 to 67 inches—very pale brown fine sand that has brownish yellow and light gray streaks of clean sand

67 to 78 inches—very pale brown fine sand that has reddish yellow and light gray streaks of clean sand

78 to 83 inches—very pale brown fine sand that has gray streaks of clean sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid

*Available water capacity:* Low

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

## Soil Survey of Wayne County, Mississippi

*Content of organic matter in the surface layer:* Low

*Tilth:* Poor

*Other distinctive properties:* Poor filtering capacity due to deep sands

### **Minor Components**

*Dissimilar soils:*

- Poorly drained Bibb soils, which have a water table at the surface; along narrow drainageways

*Similar soils:*

- Somewhat excessively drained Wadley soils, which have a sandy surface layer that is more than 40 inches thick and are in positions similar to those of the Alaga soil

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Droughtiness, nutrient leaching, equipment use, and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes conservation tillage, winter cover crops, crop residue management, and crop rotations that include grasses and legumes increase available water capacity, minimize crusting, and improve soil fertility.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, and oats

*Management concerns:* Droughtiness, equipment use, nutrient leaching, and soil fertility

*Management measures and considerations:*

- Applying supplemental irrigation and seeding or planting varieties that are adapted to droughty conditions increases crop production.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for longleaf pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Using tracked or low-pressure ground equipment minimizes rutting and the damage caused to tree roots by compaction during harvesting.
- Planting rates can be increased to compensate for the high rate of seedling mortality.

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- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

*Management concerns:* Droughtiness, equipment use, nutrient leaching, and soil fertility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Poor filtering capacity

*Management measures and considerations:*

- The soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.
- Accessing the outlets of the public sewage system eliminates the need to use this severely limited soil as a site for a septic tank system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Well suited

*Management concerns:* Unstable excavation walls

*Management measures and considerations:*

- Caution should be used in the design of road cuts because excavation walls are unstable and can collapse.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion, especially if fertilizer, lime, seed, and mulch are applied.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Droughtiness and nutrient leaching

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.
- Using split applications increases the effectiveness of fertilizer and lime.

## **Interpretive Groups**

*Land capability classification:* 3s

*Forestland ordination symbol:* 8S

## **AnA—Annemaine fine sandy loam, 0 to 2 percent slopes, rarely flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Shape of areas:* Oblong

*Size of areas:* 5 to 60 acres

### ***Composition***

Annemaine and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 2 inches—brown fine sandy loam

2 to 7 inches—yellowish brown fine sandy loam

*Subsoil:*

7 to 15 inches—red clay

15 to 23 inches—red clay that has yellowish red and gray mottles

23 to 39 inches—yellowish red clay that has yellowish red, light brown, and gray mottles

39 to 46 inches—yellowish red clay loam that has red, strong brown, and light gray mottles

46 to 55 inches—strong brown sandy clay loam that has red and light brownish gray mottles

*Substratum:*

55 to 64 inches—strong brown sandy loam that has red and light brownish gray mottles

64 to 73 inches—yellowish red loamy sand that has gray and strong brown mottles

73 to 81 inches—reddish yellow stratified layers of loamy sand, fine sand, and sandy loam having red mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Available water capacity:* High

*Seasonal high water table:* Apparent, at a depth of 1½ to 2½ feet from December through April

*Shrink-swell potential:* Moderate

*Flooding:* Rare

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Cahaba soils, which are well drained and are in positions similar to those of the Annemaine soil or slightly higher
- Quitman soils, which are somewhat poorly drained and are in the lower positions and drainageways
- Small areas of somewhat poorly drained, brownish, clayey soils along depressions

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### *Similar soils:*

- Dogue soils in positions similar to those of the Annemaine soil or slightly lower

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture and cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Wetness and flooding

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Although most of the flooding occurs during the winter, crop loss can occur during the growing season.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, and clover

*Management concerns:* Wetness, flooding, and soil fertility

*Management measures and considerations:*

- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to minimize compaction, maintain productivity, and keep the pasture in good condition.
- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- An artificial drainage system may be needed to maximize productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine and yellow poplar

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- Harvesting timber during the summer reduces the risk of damage from the flooding.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Constructing dwellings on elevated, well-compacted fill material reduces the risk of damage from the flooding.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because the seasonal high water table is at a depth of 1½ to 2½ feet.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- A surface or subsurface drainage system may be needed in some areas.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

### ***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 8W

## **BeB—Benndale fine sandy loam, 2 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulder slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 150 acres

### ***Composition***

Benndale and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—very dark grayish brown fine sandy loam

3 to 6 inches—brown fine sandy loam

*Subsurface layer:*

6 to 10 inches—brown fine sandy loam

*Subsoil:*

10 to 18 inches—yellowish brown fine sandy loam

18 to 27 inches—strong brown fine sandy loam

27 to 33 inches—strong brown fine sandy loam that has red mottles

33 to 45 inches—reddish yellow fine sandy loam that has yellowish red mottles

45 to 57 inches—reddish yellow fine sandy loam that has mottles in shades of yellow

57 to 70 inches—strong brown fine sandy loam that has yellowish red mottles

70 to 81 inches—strong brown fine sandy loam

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Excessively drained Alaga soils, which are sandy and are on the slightly lower summits
- Moderately well drained Savannah soils, which have more clay in the subsoil than the Benndale soil, have a fragipan, and are in positions similar to those of the Benndale soil
- Moderately well drained Freest soils, which have more clay in subsoil than the Benndale soil and are in lower positions

*Similar soils:*

- Small areas of Malbis soils, which have more clay in subsoil than the Benndale soil and have plinthite in the lower part
- Small areas of McLaurin soils, which have a red subsoil

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland** (fig. 2)

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility and plant competition

*Management measures and considerations:*

- Limitations affecting forestland management are slight.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and log landings.



**Figure 2.—An area of Benndale fine sandy loam, 2 to 5 percent slopes. This soil is well suited to improved pasture conservation practices.**

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- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Planting improved varieties of loblolly pine increases productivity.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

### **Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* Erodibility

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

## ***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 10A

## **BeC—Benndale fine sandy loam, 5 to 8 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands and high stream terraces

*Landform position:* Shoulder slopes and side slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 125 acres

### ***Composition***

Benndale and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—very dark grayish brown fine sandy loam

3 to 6 inches—brown fine sandy loam

*Subsurface layer:*

6 to 10 inches—brown fine sandy loam

*Subsoil:*

10 to 18 inches—yellowish brown fine sandy loam

18 to 27 inches—strong brown fine sandy loam

27 to 33 inches—strong brown fine sandy loam that has red mottles

33 to 45 inches—reddish yellow fine sandy loam that has yellowish red mottles

45 to 57 inches—reddish yellow fine sandy loam

57 to 70 inches—strong brown fine sandy loam that has yellowish red mottles

70 to 81 inches—strong brown fine sandy loam

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Heidel soils, which have a red subsoil and are on the steeper side slopes
- Moderately well drained Savannah soils, which have more clay in the subsoil than the Benndale soil, have a fragipan, and are in positions similar to those of the Benndale soil
- Smithdale soils, which have a red subsoil that has more clay than the subsoil of the Benndale soil and are on short, steeper side slopes
- Somewhat excessively drained Wadley soils, which have sandy surface and subsurface layers with a combined thickness of more than 40 inches and are on short, steeper backslopes

*Similar soils:*

- Small areas of Malbis soils, which have more clay in the subsoil than the Benndale soil and have plinthite in the lower part
- Small areas of McLaurin soils, which have a red subsoil

***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

**Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes terraces, grassed waterways, contour farming, conservation tillage, crop residue management, stripcropping, and sod-based rotations reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Plant competition

*Management measures and considerations:*

- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.

- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

#### **Septic tank absorption fields**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Well suited

*Management concerns:* Erodibility

*Management measures and considerations:*

- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

#### **Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* Erodibility

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

### ***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 10A

## **BeD—Benndale fine sandy loam, 8 to 15 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands and high stream terraces

*Landform position:* Side slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 350 acres

### ***Composition***

Benndale and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—very dark grayish brown fine sandy loam

3 to 6 inches—brown fine sandy loam

*Subsurface layer:*

6 to 10 inches—brown fine sandy loam

*Subsoil:*

10 to 18 inches—yellowish brown fine sandy loam

18 to 27 inches—strong brown fine sandy loam

27 to 33 inches—strong brown fine sandy loam that has red mottles

33 to 45 inches—reddish yellow fine sandy loam that has yellowish red mottles

45 to 57 inches—reddish yellow fine sandy loam

57 to 70 inches—strong brown fine sandy loam that has yellowish red mottles

70 to 81 inches—strong brown fine sandy loam

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Poorly drained Bibb soils along drainageways
- Moderately well drained Lorman soils, which have a reddish, clayey subsoil and are on the steeper side slopes and footslopes
- Moderately well drained Savannah soils, which have more clay in the subsoil than the Benndale soil, have a fragipan, and are in positions similar to those of the Benndale soil

*Similar soils:*

- Small areas of Boykin soils, which have a thicker combined surface and subsurface layer than that of the Benndale soil
- Small areas of Heidel soils, which have a red subsoil and are on the steeper side slopes
- Small areas of Smithdale soils, which have a red subsoil that has more clay than that of the Benndale soil
- Small areas along lower slopes that may be flooded

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Cropland and pasture

**Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility

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### *Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility and equipment use

### *Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- The slope can limit equipment use in the steeper areas.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine and slash pine

*Management concerns:* Erodibility and plant competition

### *Management measures and considerations:*

- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the water surface, thereby improving aquatic habitat.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes reduces the hazard of erosion and the siltation of streams.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

### *Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility, slope, and droughtiness

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Designing plantings to conform to the natural contour of the slope reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 4e

*Forestland ordination symbol:* 10A

**BkA—Bibb-luka complex, 0 to 1 percent slopes,  
frequently flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Bibb—planar to slightly concave slopes; luka—natural levees

*Shape of areas:* Long and narrow

*Size of areas:* 5 to 750 acres

***Composition***

Bibb and similar soils: 66 percent

luka and similar soils: 24

Dissimilar soils: 10 percent

### ***Typical Profiles***

#### **Bibb**

*Surface layer:*

0 to 8 inches—brown silt loam

*Subsurface layer:*

8 to 13 inches—dark gray silt loam

*Substratum:*

13 to 22 inches—light gray very fine sandy loam that has yellowish brown mottles

22 to 35 inches—light brownish gray very fine sandy loam that has strong brown and yellowish brown mottles

35 to 42 inches—dark gray very fine sandy loam that has light brownish gray mottles

42 to 60 inches—light gray fine sand that has very pale brown and yellowish brown mottles

60 to 74 inches—grayish brown fine sand that has dark grayish brown mottles

74 to 81 inches—dark grayish brown fine sandy loam that has light brownish gray and black mottles

#### **luka**

*Surface layer:*

0 to 2 inches—brown fine sandy loam that has streaks of white clean sand

*Subsurface layer:*

2 to 8 inches—brown fine sandy loam that has very pale brown clean sand

*Substratum:*

8 to 24 inches—light yellowish brown fine sandy loam that has streaks of light brownish gray clean sand and few thin pale brown bedding planes

24 to 34 inches—very pale brown loamy fine sand that has light gray and yellowish brown mottles

34 to 40 inches—very pale brown loamy fine sand that has light gray and yellowish brown mottles

40 to 55 inches—light yellowish brown loamy fine sand that has light gray and pale brown mottles

55 to 64 inches—light yellowish brown and very pale brown fine sand that has dark brown mottles

64 to 82 inches—light yellowish brown very pale brown fine sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Bibb—poorly drained; luka—moderately well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* Bibb—Apparent, at a depth of 1/2 to 1 1/2 feet from December through April; luka—apparent, at a depth of 1 to 3 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* Frequent for very brief or brief periods

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Bibb—moderately low; luka—low

*Tilth:* Fair

*Other distinctive properties:* Subject to scouring and deposition during flooding

### ***Minor Components***

*Dissimilar soils:*

- Well drained Jena soils, which are on the slightly higher, narrow natural levees along streams

## Soil Survey of Wayne County, Mississippi

- Somewhat poorly drained Quitman soils, which are on the slightly higher stream terraces
- Somewhat poorly drained Stough soils, which are on the slightly higher stream terraces
- Poorly drained, clayey Una soils, which are in narrow sloughs and depressions
- Small areas that are ponded

### *Similar soils:*

- Soils that have more clay in the subsoil than the major soils

## **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture and cropland

### **Cropland**

*Suitability:* Unsited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the frequent flooding. A site that has better suited soils should be selected.

### **Pasture and hayland**

*Suitability:* Suited to pasture; poorly suited to hayland

*Commonly grown crops:* Bibb—fescue and bahiagrass; luka—bahiagrass, bermudagrass, and clover

*Management concerns:* Flooding, wetness, and soil fertility

*Management measures and considerations:*

- Although most of the flooding occurs during winter and early spring, pasture and hay crops can be damaged any time of the year.
- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Bibb—suited for loblolly pine and hardwoods; luka—well suited for loblolly pine and hardwoods

*Productivity class:* Bibb—high for loblolly pine and cottonwood; luka—high for loblolly pine and sweetgum

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Natural regeneration of hardwood species is readily obtained on all openings of  $\frac{1}{2}$  acre or larger.
- Harvesting timber during the drier seasons (summer and fall) minimizes the rutting and compaction that occur if equipment is used while the soil is saturated and reduces the risk of damage from the flooding.
- Skid trails and logging roads should be seeded with grass to prevent erosion during periods of flooding.
- Reforesting immediately after harvest using minimal site preparation and recommended tree species helps to control erosion and the siltation of streams.
- Seedling survival is a severe limitation but can be partly offset by planting on raised beds.

### **Wildlife habitat**

*Potential of the Bibb soil to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—good

*Potential of the luka soil to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Flooding

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding and wetness. A site that has better suited soils should be selected.

### ***Interpretive Groups***

*Land capability classification:* 5w

*Forestland ordination symbol:* Bibb—11W; luka—9W

## **BmB—Bigbee loamy fine sand, 0 to 5 percent slopes, rarely flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 320 acres

### ***Composition***

Bigbee and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 4 inches—very dark grayish brown loamy fine sand

4 to 8 inches—brown loamy fine sand

*Substratum:*

8 to 23 inches—yellowish brown loamy sand

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23 to 33 inches—yellowish brown sand

33 to 45 inches—brownish yellow sand that has yellowish brown and very pale brown mottles

45 to 54 inches—very pale brown sand that has brownish yellow mottles

54 to 65 inches—white sand that has very pale brown and brownish yellow mottles

65 to 86 inches—very pale brown sand that has brownish yellow and red mottles

86 to 94 inches—white sand

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid

*Available water capacity:* Low

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* Rare

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Depth to bedrock:* More than 80 inches

*Other distinctive properties:* Poor filtering capacity due to deep sands

### **Minor Components**

*Dissimilar soils:*

- Loamy Cahaba and Latonia soils in the slightly lower positions
- Clayey Annemaine soils in the lower positions
- Loamy soils that have a thicker surface layer than that of the Bigbee soil; in sways
- Bibb soils along drainageways

*Similar soils:*

- Soils that have less clay and silt in the substratum than the Bigbee soil

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Droughtiness, flooding, nutrient leaching, and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes conservation tillage, winter cover crops, crop residue management, and a crop rotation that includes grasses and legumes increases available water capacity, minimizes crusting, and improves soil fertility.
- Although most of the flooding occurs during the winter and early spring, crop loss may occur during the growing season.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and wheat

*Management concerns:* Droughtiness, flooding, nutrient leaching, and soil fertility

*Management measures and considerations:*

- Applying supplemental irrigation and seeding or planting varieties that are adapted to droughty conditions increases crop production.
- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for longleaf pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Using equipment that has wide tires or tracks and harvesting when the soil is moist improve trafficability.
- If pine trees are planted, site preparation is needed to control plant competition.
- The high content of sand in the subsoil and excessive drainage of the soil are moderate limitations affecting seedling survival.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

*Management concerns:* Droughtiness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Constructing dwellings on elevated, well-compacted fill material on the highest part of the landscape reduces the risk of damage from the flooding.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Flooding and poor filtering capacity

*Management measures and considerations:*

- Flooding is a moderate hazard affecting septic tank absorption fields. Corrective measures to control the flooding generally are not practical.
- The soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Well-compacted fill material used as a road base may elevate roads above the flooding.
- Caution should be used in the design of road cuts because excavation walls are unstable and can collapse.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Droughtiness

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.
- Using split applications increases the effectiveness of fertilizer and lime.

***Interpretive Groups***

*Land capability classification:* 3s

*Forestland ordination symbol:* 8S

**BoB2—Boswell fine sandy loam, 2 to 5 percent slopes,  
eroded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Convex ridges and lower toeslopes

*Shape of areas:* Irregular or elongated

*Size of areas:* 5 to 200 acres

***Composition***

Boswell and similar soils: 88 percent

Dissimilar soils: 12 percent

***Typical Profile***

*Surface layer:*

0 to 1 inch—very dark grayish brown fine sandy loam

1 to 5 inches—dark grayish brown loam

*Subsurface layer:*

5 to 8 inches—yellowish brown loam

*Subsoil:*

8 to 12 inches—yellowish red clay

12 to 18 inches—red clay that has brownish yellow and very pale brown mottles

18 to 27 inches—red clay that has yellowish brown and brownish gray mottles

27 to 48 inches—light brownish gray clay that has red, strong brown, and yellowish brown mottles

48 to 60 inches—light brownish gray clay that has red and strong brown mottles

60 to 74 inches—light brownish gray clay that has brownish yellow, reddish yellow, and gray mottles

*Substratum:*

74 to 85 inches—light brownish gray stratified layers of silty clay and clay having gray, strong brown, and yellow mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* High

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Loamy Freest soils along ridges. The upper part of the subsoil of these soils is brownish and has less clay than the subsoil of the Boswell soil.
- Loamy Savannah soils, which have yellowish brown subsoil that has more sand than the subsoil of the Boswell soil, have a fragipan, and are on the slightly higher ridges
- Somewhat poorly drained Ichusa soils, which have more clay than the Boswell soil in the surface layer and the upper part of the subsoil and are on slightly lower ridges

*Similar soils:*

- A soil that has a browner subsoil than the Boswell soil
- Small areas of a severely eroded soil that has a surface layer of clay loam

### **Land Use**

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine

*Management concerns:* Equipment use

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and wetness

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Accessing the outlets of the public sewage system eliminates the need to use this severely limited soil as a site for a septic tank system.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Surface field ditches remove surface water and help to overcome the wetness.
- Restricted use during wet periods minimizes compaction.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 8C

**BoC2—Boswell fine sandy loam, 5 to 12 percent slopes,  
eroded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and lower slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 450 acres

***Composition***

Boswell and similar soils: 82 percent

Dissimilar soils: 18 percent

***Typical Profile***

*Surface layer:*

0 to 1 inch—very dark grayish brown fine sandy loam

1 to 5 inches—dark grayish brown loam

*Subsurface layer:*

5 to 8 inches—yellowish brown loam

*Subsoil:*

8 to 12 inches—yellowish red clay

12 to 18 inches—red clay that has brownish yellow and very pale brown mottles

18 to 27 inches—red clay that has yellowish brown and brownish gray mottles

27 to 48 inches—light brownish gray clay that has red, strong brown, and yellowish brown mottles

48 to 60 inches—light brownish gray clay that has red and strong brown mottles

60 to 74 inches—light brownish gray clay that has brownish yellow, reddish yellow, and gray mottles

*Substratum:*

74 to 85 inches—light brownish gray stratified silty clay and clay having gray, strong brown, and yellow mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* High

*Flooding:* None

*Hazard of water erosion:* Very severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Fair

### **Minor Components**

*Dissimilar soils:*

- Well drained Brantley soils, which are on the higher, steeper side slopes
- Moderately well drained Freest soils on toeslopes and ridges. The upper part of the subsoil of these soils is brownish and has less clay than the subsoil of the Boswell soil.
- Well drained Ruston soils, which have a red, loamy subsoil and are on ridges and toeslopes
- Well drained Smithdale soils, which have a red, loamy subsoil and are in positions similar to those of the Boswell soil

*Similar soils:*

- Lorman soils that are on the shorter, steeper slopes
- Small areas of severely eroded soils that have a surface layer of clay loam

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Cropland and pasture

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, strip cropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Leaving crop residue on the surface helps to conserve soil moisture.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bermudagrass and bahiagrass

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

- Proper stocking rates, pasture rotation, weed control, and brush control help to keep the pasture and soil in good condition.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine

*Management concerns:* Equipment use, erosion, and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Using improved varieties of loblolly pine increases productivity.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.
- Using tracked or low-pressure ground equipment minimizes rutting and the damage caused to tree roots by compaction during harvesting.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 6e

*Forestland ordination symbol:* 8C

**BsE2—Boykin-Luverne-Smithdale complex, 15 to 35 percent slopes, eroded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Boykin—convex nose slopes, upper parts of side slopes, and footslopes; Luverne and Smithdale—shoulder slopes, side slopes, and footslopes

*Shape of areas:* Irregular

*Size of areas:* 20 to 1,000 acres

***Composition***

Boykin and similar soils: 40 percent

Luverne and similar soils: 25 percent

Smithdale and similar soils: 25 percent

Dissimilar soils: 10 percent

***Typical Profiles***

**Boykin**

*Surface layer:*

0 to 3 inches—brown loamy fine sand

3 to 8 inches—yellowish brown loamy fine sand

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### *Subsurface layer:*

8 to 25 inches—light yellowish brown fine sand

### *Subsoil:*

25 to 38 inches—brownish yellow sandy loam

38 to 50 inches—reddish yellow sandy clay loam that has reddish yellow mottles

50 to 61 inches—reddish yellow sandy clay loam that has reddish yellow, pale brown, and red mottles

61 to 78 inches—pale brown clay loam that has reddish brown and light gray mottles

### **Luverne**

#### *Surface layer:*

0 to 3 inches—dark brown fine sandy loam

#### *Subsurface layer:*

3 to 7 inches—brown fine sandy loam

#### *Subsoil:*

7 to 19 inches—red clay loam that has brownish yellow mottles

19 to 36 inches—red clay loam that has strong brown mottles

36 to 49 inches—red clay loam that has yellowish brown mottles and light brownish gray fragments of shale

#### *Substratum:*

49 to 80 inches—red sandy clay loam that has brownish yellow mottles and light brownish gray fragments of shale

### **Smithdale**

#### *Surface layer:*

0 to 3 inches—dark yellowish brown fine sandy loam

#### *Subsurface layer:*

3 to 12 inches—yellowish brown fine sandy loam

12 to 16 inches—yellowish red fine sandy loam

#### *Subsoil:*

16 to 26 inches—red sandy clay loam

26 to 36 inches—red sandy clay loam

36 to 42 inches—red fine sandy loam

42 to 49 inches—red fine sandy loam that has yellowish red mottles

49 to 57 inches—red sandy loam with yellowish red mottles

57 to 71 inches—red sandy loam

#### *Substratum:*

71 to 80 inches—red loamy sand

## ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Boykin—rapid in the surface and subsurface layers and moderate in the subsoil; Luverne—moderately slow; Smithdale—moderate in the upper part of the subsoil and moderately rapid in the lower part

*Available water capacity:* Boykin—low; Smithdale—moderate; Luverne—high

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Boykin and Smithdale—low; Luverne—moderate

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Low

*Depth to bedrock:* More than 60 inches

### **Minor Components**

#### *Dissimilar soils:*

- Poorly drained Bibb and moderately well drained luka soils on narrow flood plains
- Somewhat excessively drained Wadley soils in positions similar to those of the Boykin soil
- Luverne and Smithdale soils that have a slope of more than 35 percent or less than 15 percent

#### *Similar soils:*

- Scattered areas of soils that are similar to the Luverne and Smithdale soils but have less clay in the substratum

### **Land Use**

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture

#### **Cropland**

*Suitability:* Unsited

*Management concerns:* Slope

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the slope. A site that has better suited soils should be selected.

#### **Pasture and hayland**

*Suitability:* Poorly suited

*Commonly grown crops:* Coastal bermudagrass and bahiagrass

*Management concerns:* Erodibility, equipment use, droughtiness, and fertility

*Management measures and considerations:*

- Special care should be taken to prevent further erosion when pastures are renovated or seedbeds are established.
- The slope may limit equipment use in the steeper areas.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- During the establishment, maintenance, or renovation of pasture and hayland, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Suited

*Productivity class:* Boykin—high for loblolly pine; Luverne and Smithdale—very high for loblolly pine

*Management concerns:* Boykin—seedling mortality and plant competition; Luverne and Smithdale—erosion, equipment use, and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment minimizes rutting and root compaction during harvesting.
- Using equipment that has wide tires or crawler-type equipment and harvesting in the drier summer months improve trafficability.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the water surface, thereby improving aquatic habitat.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility, equipment use, and fertility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing structures to conform to the natural slope helps to overcome the slope limitation.
- Land grading or shaping prior to construction minimizes the damage caused by surface flow of water and reduces the hazard of erosion.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Boykin and Smithdale—slope; Luverne—restricted permeability and slope

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Increasing the size of the absorption field and installing the distribution lines on the contour improve the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

#### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Boykin and Smithdale—slope; Luverne—low strength and slope

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

#### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.

- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* Boykin—9S for loblolly pine; Luverne and Smithdale—9R for loblolly pine

## **BtD2—Brantley-Okeelala complex, 5 to 15 percent slopes, eroded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Brantley—side slopes and footslopes; Okeelala—nose slopes and shoulder slopes

*Shape of areas:* Irregular

*Size of areas:* 15 to 350 acres

### ***Composition***

Brantley and similar soils: 73 percent

Okeelala and similar soils: 21 percent

Dissimilar soils: 6 percent

### ***Typical Profiles***

#### **Brantley**

*Surface layer:*

0 to 2 inches—brown fine sandy loam

*Subsurface layer:*

2 to 6 inches—strong brown fine sandy loam

*Subsoil:*

6 to 10 inches—mixed red and strong brown sandy clay loam

10 to 28 inches—weak red clay

28 to 42 inches—red clay loam

42 to 55 inches—red sandy clay loam that has strong brown mottles

55 to 70 inches—red sandy loam that has strong brown mottles

70 to 82 inches—red sandy loam

82 to 90 inches—red sandy loam that has strong brown mottles

#### **Okeelala**

*Surface layer:*

0 to 2 inches—dark brown fine sandy loam

*Subsurface layer:*

2 to 4 inches—yellowish brown fine sandy loam

4 to 8 inches—red fine sandy loam

*Subsoil:*

8 to 14 inches—red sandy clay loam

14 to 27 inches—red clay loam that has dark red mottles

27 to 36 inches—red sandy clay loam that has dark red mottles

36 to 45 inches—red loam

45 to 55 inches—red sandy clay loam

55 to 70 inches—red sandy loam

70 to 81 inches—red loamy fine sand that has strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Brantley—slow; Okeelala—moderate

*Available water capacity:* Brantley—high; Okeelala—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Brantley—moderate; Okeelala—low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Poorly drained Bibb soils, which have a gray subsoil that has less clay than the subsoil of the major soils; along narrow flood plains and drainageways
- Moderately well drained Boswell soils, which have a clayey subsoil that has a high shrink-swell potential; typically on the lower slopes and ridges.
- Well drained Ruston soils, which have less clay in the subsoil than the major soils; typically on the higher ridges
- Somewhat excessively drained Wadley soils, which have sandy surface and subsurface layers with a combined thickness of more than 40 inches; on nose slopes and head slopes.
- Scattered areas of moderately deep Sumter soils along areas of rock outcrop
- Scattered areas of limestone outcrop

*Similar soils:*

- Smithdale soils on upper slopes at the higher elevations and on narrow ridges
- Scattered areas of soils that are similar to the Brantley soil but that have an alkaline substratum
- Eroded areas that have more clay in the surface layer than the Brantley soil

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Leaving crop residue on the surface helps to conserve soil moisture.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass and ryegrass

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Proper stocking rates, pasture rotation, weed control, and brush control help to keep the pasture and soil in good condition.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, plant competition, and erosion

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Using improved varieties of loblolly pine increases productivity.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Suited

*Management concerns:* Brantley—shrink-swell potential and slope; Okeelala—slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Brantley—poorly suited; Okeelala—suited

*Management concerns:* Brantley—restricted permeability and slope; Okeelala—slope

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Brantley—poorly suited; Okeelala—suited

*Management concerns:* Brantley—low strength; Okeelala—slope

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 6e

*Forestland ordination symbol:* 8R

**BtE2—Brantley-Okeelala complex, 15 to 35 percent slopes, eroded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Brantley—side slopes and footslopes; Okeelala—nose slopes, shoulder slopes, and upper side slopes

*Shape of areas:* Irregular

*Size of areas:* 25 to 450 acres

***Composition***

Brantley and similar soils: 54 percent

Okeelala and similar soils: 22 percent

Dissimilar soils: 24 percent

### ***Typical Profiles***

#### **Brantley**

##### *Surface layer:*

0 to 2 inches—brown fine sandy loam

##### *Subsurface layer:*

2 to 6 inches—strong brown fine sandy loam

##### *Subsoil:*

6 to 10 inches—mixed red and strong brown sandy clay loam

10 to 28 inches—weak red clay

28 to 42 inches—red clay loam

42 to 55 inches—red sandy clay loam that has strong brown mottles

55 to 70 inches—red sandy loam that has strong brown mottles

70 to 82 inches—red sandy loam

82 to 90 inches—red sandy loam that has strong brown mottles

#### **Okeelala**

##### *Surface layer:*

0 to 2 inches—dark brown fine sandy loam

##### *Subsurface layer:*

2 to 4 inches—yellowish brown fine sandy loam

4 to 8 inches—red fine sandy loam

##### *Subsoil:*

8 to 14 inches—red sandy clay loam

14 to 27 inches—red clay loam that has dark red mottles

27 to 36 inches—red sandy clay loam that has dark red mottles

36 to 45 inches—red loam

45 to 55 inches—red sandy clay loam

55 to 70 inches—red sandy loam

70 to 81 inches—red loamy fine sand that has strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Brantley—slow; Okeelala—moderate

*Available water capacity:* Brantley—high; Okeelala—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Brantley—moderate; Okeelala—low

*Flooding:* None

*Hazard of water erosion:* Very severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

#### *Dissimilar soils:*

- Poorly drained Bibb soils, which have a gray subsoil that has less clay than the subsoil of the major soils; along narrow flood plains and drainageways
- Moderately well drained Boswell soils, which have a clayey subsoil that has a high shrink-swell potential; typically on the lower slopes and ridges
- Well drained Ruston soils, which have less clay in the subsoil than the major soils; typically on the higher ridges
- Somewhat excessively drained Wadley soils, which have sandy surface and subsurface layers with a combined thickness of more than 40 inches; on nose slopes and head slopes

## Soil Survey of Wayne County, Mississippi

- A few scattered areas of moderately deep Sumter soils along areas of rock outcrop
- A few scattered areas of limestone outcrop

### *Similar soils:*

- Smithdale soils on the upper slopes at the higher elevations and on narrow ridges
- Scattered areas of soils that are similar to the Brantley soil but that have an alkaline substratum
- Eroded areas that have more clay in the surface layer than the Brantley soil

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture

### **Cropland**

*Suitability:* Unsited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- The varying length, steepness, and direction of the slope limits the use of structural erosion-control measures.
- This map unit is severely limited for crop production because of the slope and the very severe hazard of erosion. A site that has better suited soils should be selected.

### **Pasture and hayland**

*Suitability:* Suited to pasture; poorly suited to hayland

*Commonly grown crops:* Bahiagrass and ryegrass

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- This map unit is difficult to manage for pasture or hayland because of the slope.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Proper stocking rates, pasture rotation, weed control, and brush control help to keep the pasture and soil in good condition.
- Gullies tend to form on cow paths because of the rapid runoff and very severe hazard of erosion.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility, equipment use, and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Using improved varieties of loblolly pine increases productivity.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Brantley—slope and shrink-swell potential; Okeelala—slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Brantley—restricted permeability and slope; Okeelala—slope

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Brantley—low strength and slope; Okeelala—slope

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

### **Lawns and landscaping**

*Suitability:* Poorly suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.

- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 8R

## **BtG2—Brantley-Okeelala complex, 35 to 90 percent slopes, eroded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Brantley—side slopes and footslopes; Okeelala—nose slopes, shoulder slopes, and upper side slopes

*Shape of areas:* Irregular

*Size of areas:* 10 to 800 acres

### ***Composition***

Brantley and similar soils: 55 percent

Okeelala and similar soils: 30 percent

Dissimilar soils: 15 percent

### ***Typical Profiles***

#### **Brantley**

*Surface layer:*

0 to 2 inches—brown fine sandy loam

*Subsurface layer:*

2 to 6 inches—strong brown fine sandy loam

*Subsoil:*

6 to 10 inches—mixed red and strong brown sandy clay loam

10 to 28 inches—weak red clay

28 to 42 inches—red clay loam

42 to 55 inches—red sandy clay loam that has mottles in shades of brown

55 to 70 inches—red sandy loam that has mottles in shades of brown

70 to 82 inches—red sandy loam

82 to 90 inches—red sandy loam that has mottles in shades of brown

#### **Okeelala**

*Surface layer:*

0 to 2 inches—dark brown fine sandy loam

*Subsurface layer:*

2 to 4 inches—yellowish brown fine sandy loam

4 to 8 inches—red fine sandy loam

*Subsoil:*

8 to 14 inches—red sandy clay loam that has dark red coatings

14 to 27 inches—red clay loam that has dark red coatings

## Soil Survey of Wayne County, Mississippi

27 to 36 inches—red sandy clay loam that has mottles in shades of dark red  
36 to 45 inches—red loam  
45 to 55 inches—red sandy clay loam  
55 to 70 inches—red sandy loam  
70 to 81 inches—red loamy fine sand that has mottles in shades of brown.

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Brantley—slow; Okeelala—moderate

*Available water capacity:* Brantley—high; Okeelala—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Brantley—moderate; Okeelala—low

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Low

*Depth to bedrock:* More than 60 inches

### ***Minor Components***

*Dissimilar soils:*

- Scattered areas of moderately deep Sumter soils
- Sandy Wadley soils on narrow ridgetops
- Boswell soils, which have a high shrink-swell potential and are on the lower parts of slopes
- Poorly drained Bibb soils on narrow flood plains
- Scattered areas of limestone outcrop

*Similar soils:*

- Scattered areas of soils that are similar to the Brantley soil but that have an alkaline substratum

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Wildlife habitat

#### **Cropland**

*Suitability:* Unsited

*Management concerns:* Slope

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the very steep slope. A site that has better suited soils should be selected.

#### **Pasture and hayland**

*Suitability:* Unsited

*Management concerns:* Slope

*Management measures and considerations:*

- This map unit is severely limited for pasture and hay because of the very steep, highly dissected slope. A site that has better suited soils should be selected.

#### **Forestland**

*Suitability:* Poorly suited

*Productivity class:* High for loblolly pine

*Management concerns:* Brantley—erodibility, equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.

- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- The use of cable logging helps to minimize the need for road and trail construction, especially in areas where the slope is more than about 50 percent.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the water surface, thereby improving aquatic habitat.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—poor; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Brantley—restricted permeability and slope; Okeelala—slope

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Urban development**

*Suitability:* Unsited

*Management concerns:* Slope

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the slope. A site that has better suited soils should be selected.

### ***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 8R for loblolly pine

## **CaA—Cahaba fine sandy loam, 0 to 2 percent slopes, rarely flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Shape of areas:* Oblong or irregular

*Size of areas:* 5 to 85 acres

### ***Composition***

Cahaba and similar soils: 83 percent

Dissimilar soils: 17 percent

### ***Typical Profile***

#### ***Surface layer:***

0 to 3 inches—very dark grayish brown fine sandy loam

3 to 9 inches—dark yellowish brown fine sandy loam

#### ***Subsoil:***

9 to 14 inches—yellowish red sandy clay loam

14 to 26 inches—red sandy clay loam

26 to 37 inches—red sandy clay loam

37 to 41 inches—yellowish red sandy clay loam

41 to 45 inches—strong brown sandy loam

#### ***Substratum:***

45 to 49 inches—brownish yellow loamy sand

49 to 84 inches—light yellowish brown fine sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* Rare

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

### ***Minor Components***

#### ***Dissimilar soils:***

- Moderately well drained Annemaine soils, which have more clay in the subsoil than the Cahaba soil and are in similar to slightly lower positions
- Somewhat excessively drained Bigbee soils, which have a sandy subsoil and are in the slightly higher positions
- Poorly drained Bibb soils, which have less clay in subsoil than the Cahaba soil and are in narrow drainageways

#### ***Similar soils:***

- Small areas of Latonia soils, which have a subsoil that is browner and contains less clay than the subsoil of the Cahaba soil

### ***Land Use***

**Dominant uses:** Cropland and pasture

**Other uses:** Forestland

#### ***Cropland***

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Flooding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, crop loss can occur during the growing season.
- Leaving the maximum amount of crop residue on the surface helps to control soil blowing and conserves soil moisture.

## Soil Survey of Wayne County, Mississippi

- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Flooding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to minimize compaction, maintain productivity, and keep the pasture in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Plant competition

*Management measures and considerations:*

- Planting appropriate species as recommended by a forester maximizes productivity and helps to ensure planting success.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Constructing dwellings on the highest part of the landscape reduces the risk of damage from the flooding.

### **Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 1

*Forestland ordination symbol:* 9A

**CaB—Cahaba fine sandy loam, 2 to 5 percent slopes,  
rarely flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Shape of areas:* Oblong or irregular

*Size of areas:* 5 to 85 acres

***Composition***

Cahaba and similar soils: 80 percent

Dissimilar soils: 20 percent

***Typical Profile***

*Surface layer:*

0 to 3 inches—very dark grayish brown fine sandy loam

3 to 9 inches—dark yellowish brown fine sandy loam

*Subsoil:*

9 to 14 inches—yellowish red sandy clay loam

14 to 26 inches—red sandy clay loam

26 to 37 inches—red sandy clay loam

37 to 41 inches—yellowish red sandy clay loam

41 to 45 inches—strong brown sandy loam

*Substratum:*

45 to 49 inches—brownish yellow loamy sand

49 to 84 inches—light yellowish brown fine sand

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* Rare

## Soil Survey of Wayne County, Mississippi

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained Annemaine soils, which have more clay in the subsoil than the Cahaba soil and are in similar to slightly lower positions
- Somewhat excessively drained Bigbee soils, which have a sandy subsoil and are in the slightly higher positions

*Similar soils:*

- Small areas of Latonia soils, which have a subsoil that is browner and contains less clay than the subsoil of the Cahaba soil

### **Land Use**

**Dominant uses:** Pasture

**Other uses:** Cropland and forestland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Flooding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, crop loss can occur during the growing season.
- Leaving the maximum amount of crop residue on the surface helps to control soil blowing and conserves soil moisture.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Flooding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, livestock and hay crops can be damaged any time of the year.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to minimize compaction, maintain productivity, and keep the pasture in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Plant competition

*Management measures and considerations:*

- Planting appropriate species as recommended by a forester maximizes productivity and helps to ensure planting success.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

#### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Constructing dwellings on the highest part of the landscape reduces the risk of damage from the flooding.

#### **Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

#### **Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

### ***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9A

## **DgB—Dogue fine sandy loam, gently undulating, rarely flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Slope:* 0 to 5 percent

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 60 acres

### ***Composition***

Dogue and similar soils: 90 percent  
Dissimilar soils: 10 percent

### ***Typical Profile***

#### *Surface layer:*

0 to 7 inches—brown fine sandy loam

#### *Subsoil:*

7 to 21 inches—strong brown clay that has dark yellowish brown mottles

21 to 31 inches—strong brown clay that has dark yellowish brown and light brownish gray mottles

31 to 38 inches—dark yellowish brown clay that has light brownish gray, dark yellowish brown, and yellowish red mottles

38 to 50 inches—red clay loam that has yellowish brown, grayish brown, and strong brown mottles

#### *Substratum:*

50 to 63 inches—brownish yellow fine sandy loam that has light yellowish brown mottles

63 to 70 inches—brownish yellow loamy fine sand

70 to 83 inches—light yellowish brown and brown sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate

*Available water capacity:* High

*Seasonal high water table:* Apparent, at a depth of 1½ to 3 feet from January through April

*Shrink-swell potential:* Moderate

*Flooding:* Rare

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

### ***Minor Components***

#### *Dissimilar soils:*

- Well drained Cahaba soils, which are in positions similar to those of the Dogue soil or slightly higher
- Somewhat poorly drained Urbo soils, which are in the lower positions adjacent to drainageways
- Poorly drained Una soils, which are in the lower positions and depressional areas adjacent to drainageways

#### *Similar soils:*

- Annemaine soils, which have a red subsoil and are in positions similar to those of the Dogue soil

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and flooding

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting.
- Although most of the flooding occurs during the winter, crop loss may occur during the growing season.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, and clover

*Management concerns:* Erodibility, wetness, and flooding

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Constructing dwellings on elevated, well-compacted fill material reduces the risk of damage from the flooding and wetness.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because the seasonal high water table is at a depth of 1½ to 3 feet.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness and flooding.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility, wetness, and flooding

*Management measures and considerations:*

- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- A surface drainage system may be needed in some areas.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9A

**FnA—Fluvaquents, ponded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Oxbows, sloughs, swales, and other depressional areas

*Slope:* 0 to 1 percent

*Shape of areas:* Irregular or oblong

*Size of areas:* 7 to 200 acres

***Composition***

Fluvaquents and similar soils: 91 percent

Dissimilar soils: 9 percent

***Typical Profile***

No typical pedon has been selected.

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Very poorly drained

## Soil Survey of Wayne County, Mississippi

*Permeability:* Variable

*Available water capacity:* Variable

*Seasonal high water table:* Apparent, from 2½ feet above the surface to a depth of ½ foot from November to July

*Shrink-swell potential:* Variable

*Flooding:* Frequent

*Hazard of water erosion:* None

*Content of organic matter in the surface layer:* Moderate

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained luka soils along natural levees of drainageways
- Poorly drained Una soils in sloughs and depressional areas along edges of mapped areas

*Similar soils:*

- Poorly drained soils that are not subject to long duration ponding

### **Land Use**

**Dominant uses:** Forestland and wildlife habitat

#### **Cropland**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

#### **Pasture and hayland**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, wetness

*Management measures and considerations:*

- This map unit is severely limited for pasture and hay because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

#### **Forestland**

*Suitability:* Poorly suited

*Productivity class:* High for water tupelo, tupelo gum, and bald cypress; moderate for sweetbay

*Management concerns:* Equipment use, seedling mortality, and windthrow

*Management measures and considerations:*

- Using low-pressure ground equipment minimizes rutting and the damage caused to tree roots by compaction.
- Harvesting timber during the drier parts of summer reduces the risk of damage from the flooding.
- Maintaining drainageways and planting trees that are tolerant of wetness increase the seedling survival rate.
- Planting a wind barrier of faster growing species around the stand reduces wind velocity and thereby decreases windthrow.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—poor; forestland wildlife—poor; wetland wildlife—good

*Management concerns:* Equipment use, flooding, ponding, and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture adjacent to the map unit. These areas provide wildlife with food and a place to rest.

- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Wetness and ponding

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

***Interpretive Groups***

*Land capability classification:* 7w

*Forestland ordination symbol:* 7W

**FsA—Freest fine sandy loam, 0 to 2 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits, shoulders, and footslopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 220 acres

***Composition***

Freest and similar soils: 91 percent

Dissimilar soils: 9 percent

***Typical Profile***

*Surface layer:*

0 to 7 inches—brown fine sandy loam

*Subsurface layer:*

7 to 12 inches—light yellowish brown fine sandy loam

*Subsoil:*

12 to 22 inches—yellowish brown sandy clay loam that has mottles in shades of brown and gray

22 to 31 inches—yellowish brown clay loam that has light brownish gray and pale brown mottles

31 to 41 inches—mottled yellowish brown, light brownish gray, strong brown, and red clay

41 to 59 inches—mottled strong brown, light brownish gray, yellowish brown, and red clay

59 to 81 inches—light brownish gray clay that has reddish yellow and red mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Available water capacity:* High

*Seasonal high water table:* Apparent, at a depth of 1½ to 2½ feet from January through April

*Shrink-swell potential:* Moderate in the upper part of the subsoil and high in the lower part

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained, clayey Boswell soils on the higher hillslopes
- Moderately well drained, clayey Lorman soils on short side slopes around drain heads
- Somewhat poorly drained Quitman and Stough soils in drainageways

*Similar soils:*

- Petal soils, which have a reddish subsoil and are on the shorter, steeper slopes
- Harleston soils, which have less clay in the subsoil than the Freest soil and are in lower positions
- Small areas of somewhat poorly drained soils
- Small areas of eroded soils that have more clay in the surface layer than the Freest soil

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Row crops and pasture

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, dallisgrass, ryegrass, and clover

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.

- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because the seasonal high water table is at a depth of 1½ to 2½ feet.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.

- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 9W

**FsB—Freest fine sandy loam, 2 to 5 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits, shoulders, and footslopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 220 acres

***Composition***

Freest and similar soils: 91 percent

Dissimilar soils: 9 percent

***Typical Profile***

*Surface layer:*

0 to 7 inches—brown fine sandy loam

*Subsurface layer:*

7 to 12 inches—light yellowish brown fine sandy loam

*Subsoil:*

12 to 22 inches—yellowish brown sandy clay loam that has mottles in shades of brown and gray

22 to 31 inches—yellowish brown clay loam that has light brownish gray and pale brown mottles

31 to 41 inches—mottled yellowish brown, light brownish gray, strong brown, and red clay

41 to 59 inches—mottled strong brown, light brownish gray, yellowish brown, and red clay

59 to 81 inches—light brownish gray clay that has reddish yellow and red mottles

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Available water capacity:* High

## Soil Survey of Wayne County, Mississippi

*Seasonal high water table:* Apparent, at a depth of 1½ to 2½ feet from January through April

*Shrink-swell potential:* Moderate in the upper part of the subsoil and high in the lower part

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained, clayey Boswell soils on the higher hillslopes
- Moderately well drained, clayey Lorman soils on short side slopes around drain heads
- Somewhat poorly drained Quitman and Stough soils in drainageways

*Similar soils:*

- Petal soils, which have a reddish subsoil and are on the shorter, steeper slopes
- Harleston soils, which have less clay in the subsoil than the Freest soil and are in lower positions
- Small areas of somewhat poorly drained soils
- Small areas of eroded soils that have more clay in the surface layer than the Freest soil

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Row crops and pasture

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, dallisgrass, ryegrass, and clover

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because the seasonal high water table is at a depth of 1½ to 2½ feet.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

#### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9W

## **FsC—Freest fine sandy loam, 5 to 8 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Narrow sloping ridges, shoulder slopes, and toeslopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 120 acres

### ***Composition***

Freest and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 7 inches—brown fine sandy loam

*Subsurface layer:*

7 to 12 inches—light yellowish brown fine sandy loam

*Subsoil:*

12 to 22 inches—yellowish brown sandy clay loam that has mottles in shades of brown and gray

22 to 31 inches—yellowish brown clay loam that has light brownish gray and pale brown mottles

31 to 41 inches—mottled yellowish brown, light brownish gray, strong brown, and red clay

41 to 59 inches—mottled strong brown, light brownish gray, yellowish brown, and red clay

59 to 81 inches—light brownish gray clay that has reddish yellow and red mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Available water capacity:* High

*Seasonal high water table:* Apparent, at a depth of 1½ to 2½ feet from January through April

*Shrink-swell potential:* Moderate in the upper part of the subsoil and high in the lower part

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained, clayey Boswell soils on the higher hillslopes
- Moderately well drained, clayey Lorman soils on short side slopes around drain heads
- Somewhat poorly drained Quitman and Stough soils in drainageways
- Moderately well drained Savannah soils, which have a fragipan and are on the higher parts of ridges

*Similar soils:*

- Small eroded areas that have a surface layer of clay loam
- Somewhat poorly drained areas along drainageways and in flat spots

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Small areas of row crops

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes terraces, grassed waterways, contour farming, conservation tillage, crop residue management, stripcropping, no-till, and sod-based rotations reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, dallisgrass, ryegrass, and clover

*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland (fig. 3)**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.



**Figure 3.—An area of Freest fine sandy loam, 5 to 8 percent slopes. This soil is well suited to pine plantations.**

- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because the seasonal high water table is at a depth of 1½ to 2½ feet.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and low strength

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9W

**HaA—Harleston fine sandy loam, 0 to 2 percent slopes,  
rarely flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Terraces

*Landform position:* Planar to slightly convex areas

*Shape of areas:* Oblong

*Size of areas:* 5 to 200 acres

***Composition***

Harleston and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 4 inches—very dark grayish brown fine sandy loam

4 to 9 inches—dark grayish brown fine sandy loam

9 to 13 inches—brown fine sandy loam that has light yellowish brown mottles

## Soil Survey of Wayne County, Mississippi

### *Subsoil:*

- 13 to 22 inches—brownish yellow fine sandy loam that has pockets of white clean sand grains
- 22 to 33 inches—brownish yellow loam that has strong brown mottles and pockets of clean sand grains
- 33 to 43 inches—brownish yellow loam that has strong brown and light brownish gray mottles
- 43 to 50 inches—brownish yellow loam that has strong brown and yellowish brown mottles
- 50 to 68 inches—pale brown loam that has strong brown and yellowish brown mottles
- 68 to 76 inches—light brownish gray sandy clay loam that yellowish brown and light grayish brown mottles
- 76 to 90 inches—light grayish brown sandy clay loam that has yellowish brown and strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* More than 60 inches

*Drainage class:* Moderately well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* Apparent, at a depth of 2 to 3 feet from December through March

*Shrink-swell potential:* Low

*Flooding:* Rare

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

#### *Dissimilar soils:*

- Poorly drained Bibb soils in drainageways
- Excessively drained Bigbee soils, which have more sand in the subsoil than the Harleston soil; in the slightly higher positions
- Poorly drained Leaf soils, which have more clay in the subsoil than the Harleston soil; in the lower positions
- Somewhat poorly drained Quitman soils, which have more clay in the subsoil than the Harleston soil; in the slightly lower positions
- Somewhat poorly drained Stough soils in the slightly lower positions

#### *Similar soils:*

- Small areas of soils that have more clay in the subsoil than the Harleston soil
- Small areas of soils in which the content of clay increases with depth

### ***Land Use***

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland and hayland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Corn, soybeans, wheat, and specialty crops

*Management concerns:* Wetness, flooding, and soil fertility

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and increases productivity.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.

## Soil Survey of Wayne County, Mississippi

- Although most of the flooding occurs during the winter and early spring, crop loss may occur during the growing season.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, clover, and ryegrass

*Management concerns:* Wetness

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimizes compaction and helps to maintain productivity and tilth.
- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* Plant competition and seedling mortality

*Management measures and considerations:*

- Planting rates can be increased to compensate for the high rate of seedling mortality.
- Skid trails and logging roads should be seeded with grass to prevent erosion during periods of flooding.
- Reforesting immediately after harvest using minimal site preparation and recommended tree species helps to control erosion and the siltation of streams during flooding.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Flooding, wetness, and soil fertility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Constructing structures on the highest part of the landscape reduces the risk of damage from the flooding.
- Constructing dwellings on elevated, well-compacted fill material reduces the risk of damage from the flooding and wetness.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- This map unit is severely limited as a site for septic tank absorption fields because of the seasonal high water table.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Flooding is a severe limitation. Well-compacted fill material used as a road base may elevate roads above the flooding.
- Designing roads to safely remove surface water improves soil performance.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* Wetness and flooding

*Management measures and considerations:*

- This map unit is difficult to manage because of the flooding, which severely limits use during periods of inundation.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 9W

**HeD—Heidel fine sandy loam, 8 to 15 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 650 acres

***Composition***

Heidel and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 6 inches—dark yellowish brown fine sandy loam

*Subsurface layer:*

6 to 10 inches—yellowish red loamy fine sand

*Subsoil:*

10 to 24 inches—red sandy loam

24 to 33 inches—red sandy loam

33 to 45 inches—yellowish red loam

*Substratum:*

45 to 73 inches—yellowish red fine sandy loam

73 to 80 inches—light red fine sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Bibb soils, which are poorly drained and are in drainageways
- Lorman soils, which have more clay in the subsoil than the Heidelberg soil and are on the lower slopes and footslopes

*Similar soils:*

- Small areas of Boykin soils, which have a thicker combined surface and subsurface layer than the Heidelberg soil
- Small areas of Smithdale soils, which have more clay in the subsoil than the Heidelberg soil

### ***Land Use***

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, strip cropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility, equipment use, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- The slope can limit equipment use in the steeper areas.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland** (fig. 4)

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility and seedling mortality

*Management measures and considerations:*

- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the water surface, thereby improving aquatic habitat.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes reduces the hazard of erosion and the siltation of streams.
- Planting rates can be increased to compensate for the high rate of seedling mortality.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Suited

*Management concerns:* Slope



**Figure 4.—**An area of Heidel fine sandy loam, 8 to 15 percent slopes, that has been clearcut and harvested in preparation for reseedling. The area previously supported a pine forest.

*Management measures and considerations:*

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Slope and droughtiness

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Designing plantings to conform to the natural contour of the slope reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 4e

*Forestland ordination symbol:* 9A

**HeE—Heidel fine sandy loam, 15 to 35 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Irregular to linear

*Size of areas:* 5 to 225 acres

***Composition***

Heidel and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 6 inches—dark yellowish brown fine sandy loam

*Subsurface layer:*

6 to 10 inches—yellowish red loamy fine sand

*Subsoil:*

10 to 24 inches—red sandy loam

24 to 33 inches—red sandy loam

33 to 45 inches—yellowish red loam

*Substratum:*

45 to 73 inches—yellowish red fine sandy loam

73 to 80 inches—light red fine sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* More than 60 inches

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Very severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Benndale soils, which have a browner subsoil than the Heidelberg soil and are on ridges
- Bibb soils, which are poorly drained and are in drainageways
- Lorman soils, which have more clay in the subsoil than the Heidelberg soil and are on lower slopes

*Similar soils:*

- Boykin soils, which are positions similar to those of the Heidelberg soil but have a thicker subsurface layer
- Smithdale soils, which are positions similar to those of the Heidelberg soil but have more clay in the subsoil

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture

#### **Cropland**

*Suitability:* Unsited

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- This map unit is severely limited for crop production. A site that has better suited soils should be selected.

#### **Pasture and hayland**

*Suitability:* Suited to pasture; poorly suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Equipment use and erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- The slope limits equipment use in the steeper areas.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility, equipment use, and seedling mortality

*Management measures and considerations:*

- Reseeding disturbed areas with adapted grasses and legumes reduces the hazard of erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Using tracked or low-pressure ground equipment minimizes rutting and root compaction during harvesting.
- Planting seedlings during wet, cool seasons increases the seedling survival rate.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Vegetating cleared and graded areas as soon as possible or installing silt fences helps to maintain soil stability and to keep soil on the site.
- Grading or shaping land prior to construction minimizes damage from surface flow of water and reduces the hazard of erosion.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of the system.
- Seeps and springs may be encountered during excavation of trenches. These areas should not be used.

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Poorly suited

*Management concerns:* Slope and droughtiness

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Designing plantings to conform to the natural contour of the slope reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 9A

**IcB—Ichusa silty clay loam, 2 to 5 percent slopes**

***Setting***

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Shoulder slopes and footslopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 300 acres

***Composition***

Ichusa and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 2 inches—dark brown silty clay loam that has yellowish brown mottles

*Subsoil:*

2 to 11 inches—yellowish brown silty clay that has yellowish red mottles

11 to 19 inches—yellowish brown clay that has yellowish red mottles

19 to 30 inches—yellowish brown clay that has light brownish gray and red mottles

30 to 41 inches—yellowish brown clay that has light brownish gray mottles

41 to 59 inches—yellowish brown clay that has light olive gray mottles

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### *Substratum:*

59 to 73 inches—light gray clay that has yellowish brown and light grayish brown mottles

73 to 85 inches—brownish yellow clay that has dark grayish brown and dark yellowish brown mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* More than 60 inches

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* Perched, at depth of 1½ to 3 feet from January through March

*Shrink-swell potential:* Very high

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Poor

### **Minor Components**

#### *Dissimilar soils:*

- Loamy Freest soils in the slightly higher positions
- Scattered areas of moderately well drained Maytag soils, which are alkaline throughout

#### *Similar soils:*

- Scattered areas of soils that have more clay in the subsoil than the Ichusa soils

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture and cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Corn, soybeans, cotton, and small grains

*Management concerns:* Erodibility, wetness, and tilth

*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing of the surface layer and help to control erosion.
- Seedbed preparation and spring cultivation can be delayed because of wetness.
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Dallisgrass, bermudagrass, bahiagrass, and fescue

*Management concerns:* Erodibility, equipment use, and wetness

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.

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- Restricting field work to periods when the soil is not wet minimizes rutting and the compaction of the surface layer caused by the high content of clay.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, erodibility, and plant competition

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- The seedling survival rate can be increased by planting on raised beds or by hand planting or seeding.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Equipment use and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or back filling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability and wetness

*Management measures and considerations:*

- Accessing the outlets of the public sewage system eliminates the need to use this severely limited soil as a site for a septic tank system.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and low strength

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Surface field ditches remove surface water and help to overcome the wetness.
- Restricted use during wet periods minimizes compaction.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9C for loblolly pine

**IrB—Irvington very fine sandy loam, 2 to 5 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridges and shoulder slopes

*Shape of areas:* Irregular or elongated

*Size of areas:* 5 to 120 acres

***Composition***

Irvington and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 6 inches—dark grayish brown very fine sandy loam

*Subsurface layer:*

6 to 13 inches—yellowish brown fine sandy loam

*Subsoil:*

13 to 19 inches—yellowish brown loam

19 to 25 inches—yellowish brown loam that has light yellowish brown and yellowish brown mottles

25 to 41 inches—strong brown loam that light yellowish brown and light red mottles

41 to 59 inches—strong brown loam that has light yellowish brown and light red mottles

59 to 76 inches—yellowish brown loam that has light yellowish brown and strong brown mottles

76 to 81 inches—pale brown, red, and brownish yellow clay loam

### **Soil Properties and Qualities**

*Potential rooting depth:* Moderately deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the upper part and moderately slow in the fragipan

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1½ to 3 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Other distinctive properties:* A fragipan at a depth of 22 to 35 inches; plinthite in the lower part

### **Minor Components**

*Dissimilar soils:*

- Well drained Benndale soils, which are in positions similar to those of the Irvington soil but do not have a fragipan and contain less clay
- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Irvington soil
- Moderately well drained, clayey Lorman soils, which are on the shorter, steeper side slopes in the slightly lower positions
- Well drained McLaurin and Ruston soils, which are in positions similar to those of the Irvington soil along slope breaks but have a reddish subsoil
- Well drained Smithdale soils, which are on the steeper side slopes and have a reddish subsoil

*Similar soils:*

- Well drained Malbis soils, which have plinthite in the subsoil but no fragipan
- Savannah soils, which do not have plinthite

### **Land Use**

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and root penetration

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Chisel plowing and subsoiling help to break through hardpans and thereby increase root penetration and rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility, wetness, and root penetration

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Chisel plowing and subsoiling when seedbeds are prepared help to break through hardpans, increasing root penetration and the rate of rainfall infiltration.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, plant competition, and windthrow

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Wetness, erodibility, and root penetration

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- This map unit is severely limited as a site for septic tank absorption fields because of the restricted permeability in the fragipan. This limitation can be partly overcome by increasing the size of the absorption field and using suitable fill material to raise the absorption field.

- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Designing roads to safely remove surface runoff improves soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and droughtiness

*Management measures and considerations:*

- Rooting depth is restricted because of a fragipan in the lower part of the subsoil. The fragipan results in droughtiness in late summer.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 11W

**JnB—Jena-Una-Mantachie complex, gently undulating,  
frequently flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Jena—high parts of low, parallel ridges; Una—swales and sloughs;  
Mantachie—lower parts of ridges and in shallow sloughs

*Shape of areas:* Long and narrow

*Size of areas:* 25 to 500 acres

***Composition***

Jena and similar soils: 40 percent

Una and similar soils: 20 percent

Mantachie and similar soils: 17 percent

Dissimilar soils: 23 percent

***Typical Profiles***

**Jena**

*Surface layer:*

0 to 6 inches—dark brown fine sandy loam

## Soil Survey of Wayne County, Mississippi

### *Subsoil:*

6 to 27 inches—dark yellowish brown loam  
27 to 45 inches—yellowish brown fine sandy loam

### *Substratum:*

45 to 53 inches—yellowish brown sandy loam that has gray mottles  
53 to 81 inches—mottled light yellowish brown, yellowish brown, and light brownish gray sandy loam

### **Una**

#### *Surface layer:*

0 to 2 inches—dark grayish brown silty clay loam

#### *Subsoil:*

2 to 7 inches—gray silty clay loam that has yellowish red and reddish brown mottles  
7 to 20 inches—gray clay that has yellowish red and reddish brown mottles  
20 to 45 inches—light brownish clay that has strong brown and yellowish red mottles  
45 to 68 inches—gray clay that has red mottles  
68 to 77 inches—light brownish gray clay loam that has yellowish red and strong brown mottles

#### *Substratum:*

77 to 81 inches—gray clay loam that has yellowish red mottles

### **Mantachie**

#### *Surface layer:*

0 to 9 inches—dark brown silt loam

#### *Subsoil:*

9 to 20 inches—mottled brown and gray loam  
20 to 30 inches—gray clay loam that has dark brown and yellowish brown mottles  
30 to 39 inches—gray sandy clay loam that has yellowish brown mottles

#### *Substratum:*

39 to 80 inches—gray sandy loam that has yellowish brown mottles

## ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Jena—well drained; Una—poorly drained; Mantachie—somewhat poorly drained

*Permeability:* Jena and Mantachie—moderate; Una—very slow

*Available water capacity:* Jena—moderate; Una and Mantachie—high

*Seasonal high water table:* Jena—none within a depth of 6 feet; Una—at the surface to a depth of 1 foot from December through April; Mantachie—apparent, at a depth of 1 to 1½ feet from December through April

*Shrink-swell potential:* Jena and Mantachie—low; Una—high

*Flooding:* Frequent

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Jena—low; Una and Mantachie—moderate

*Tilth:* Fair

## ***Minor Components***

### *Dissimilar soils:*

- Moderately well drained luka soils on high parts of natural levees
- Poorly drained Bibb soils in sloughs
- Somewhat poorly drained Urbo soils in shallow swales
- Small areas of moderately well drained, clayey soils on intermediate parts of natural levees and lower levees

## ***Land Use***

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture and hayland

### **Cropland**

*Suitability:* Poorly suited

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

### **Pasture and hayland**

*Suitability:* Jena and Mantachie —suited to pasture and poorly suited to hayland;

Una—poorly suited to pasture and unsuited to hayland

*Commonly grown crops:* Common bermudagrass and bahiagrass

*Management concerns:* Equipment use, flooding, and wetness

*Management measures and considerations:*

- Although most of the flooding occurs during the winter and spring, pasture and hay can be damaged any time of the year.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- Using equipment only when the soil has the proper moisture content helps to prevent rutting and compaction.

### **Forestland**

*Suitability:* Suited to loblolly pine and hardwoods

*Productivity class:* Jena and Mantachie—very high for loblolly pine; Una—high for bald cypress and water tupelo

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes rutting and compaction.
- Harvesting timber during the summer and fall reduces the risk of damage from the flooding.
- Bedding the Una soil prior to planting helps to establish seedlings and increases the seedling survival rate.
- Site preparation practices, such as chopping and the application of herbicides, help to control plant competition.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

### **Wildlife habitat**

*Potential of the Jena soil to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Potential of the Una soil to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—good

*Potential of the Mantachie soil to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—fair

*Management concerns:* Equipment use, flooding, and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.

- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

***Interpretive Groups***

*Land capability classification:* 5w

*Forestland ordination symbol:* Jena—11W for loblolly pine; Una—9W for bald cypress and water tupelo; Mantachie—10W for loblolly pine

**LaA—Latonia loamy sand, 0 to 2 percent slopes, rarely flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Shape of areas:* Oblong or irregular

*Size of areas:* 5 to 35 acres

***Composition***

Latonia and similar soils: 80 percent

Dissimilar soils: 20 percent

***Typical Profile***

*Surface layer:*

0 to 4 inches—dark grayish brown loamy sand

4 to 8 inches—yellowish brown loamy sand

*Subsoil:*

8 to 15 inches—yellowish brown fine sandy loam

15 to 25 inches—yellowish brown fine sandy loam

25 to 32 inches—yellowish brown fine sandy loam that has strong brown mottles

*Substratum:*

32 to 43 inches—brownish yellow fine sand

43 to 81 inches—very pale brown fine sand that has strong brown mottles

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* Rare for very brief or brief periods

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

#### *Dissimilar soils:*

- Moderately well drained Annemaine soils, which have more clay in the subsoil than the Latonia soil and are in slightly lower positions
- Somewhat excessively drained Bigbee soils, which have a sandy subsoil and are in the slightly higher positions
- Poorly drained Bibb soils on narrow drainageways
- Somewhat poorly drained Stough soils, which have fragic properties in subsoil and are in the lower positions

#### *Similar soils:*

- Small areas of Cahaba soils, which have a subsoil that is red and has more clay than the subsoil of the Latonia soil

### **Land Use**

**Dominant uses:** Cropland and pasture

**Other uses:** Forestland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Flooding and natural fertility

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, crop loss can occur during the growing season.
- Leaving the maximum amount of crop residue on the surface helps to control soil blowing and conserves soil moisture.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, and ryegrass

*Management concerns:* Flooding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter, livestock and hay crops can be damaged any time of the year.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to minimize compaction, maintain productivity, and keep the pasture in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine and slash pine

*Management concerns:* Plant competition and windthrow

*Management measures and considerations:*

- Site preparation practices, such as chopping and the application of herbicides, help to control plant competition.
- Planting seedlings close together reduces the hazard of wind damage.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Flooding

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Constructing dwellings on the highest part of the landscape reduces the risk of damage from the flooding.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- The soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Well-compacted fill material can be used as a road base to elevate roads above the flooding.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Flooding and droughtiness

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 2s

*Forestland ordination symbol:* 9A

**LfA—Leaf silt loam, 0 to 1 percent slopes, frequently flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Planar to slightly concave slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 500 acres

### ***Composition***

Leaf and similar soils: 91 percent  
Dissimilar soils: 9 percent

### ***Typical Profile***

*Surface layer:*

0 to 2 inches—dark grayish brown silt loam

*Subsurface layer:*

2 to 7 inches—light brownish gray silt loam that has strong brown mottles

*Subsoil:*

7 to 13 inches—grayish brown silty clay that has grayish brown mottles

13 to 23 inches—grayish brown clay that has grayish brown mottles

23 to 36 inches—light gray clay that has light grayish brown mottles

36 to 49 inches—light brownish gray clay that has strong brown mottles

49 to 73 inches—light brownish gray clay loam that has strong brown mottles

*Substratum:*

73 to 81 inches—light gray clay loam that has brownish yellow and strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* More than 60 inches

*Drainage class:* Poorly drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* Apparent, at a depth of 1/2 to 1 1/2 feet from December through May

*Shrink-swell potential:* High

*Flooding:* Frequent

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Moderately low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Poorly drained Bibb soils along drainageways
- Moderately well drained luka along narrow stream channels
- Somewhat poorly drained loamy Stough and Quitman soils in the slightly higher positions

*Similar soils:*

- Small areas of soils that have a transition layer between the subsurface layer and the subsoil
- Small areas that are subject to ponding

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture

#### **Cropland**

*Suitability:* Unsited

*Commonly grown crops:* None

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the seasonal high water table and frequent flooding. A site that has better suited soils should be selected.

**Pasture and hayland**

*Suitability:* Suited to pasture; poorly suited to hayland

*Commonly grown crops:* Bahiagrass and common bermudagrass

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Installing and maintaining a surface drainage system increases productivity.
- Although most of the flooding occurs during winter and early spring, pasture and hay crops can be damaged any time of the year.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Suited

*Productivity class:* High for loblolly pine; moderately high for hardwoods

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes the rutting and compaction that occurs when the soil is saturated.
- Site preparation practices, such as chopping and the application of herbicides, help to control plant competition.
- Harvesting timber during summer and fall reduces the risk of damage from the flooding.
- Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—good

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding and wetness. A site that has better suited soils should be selected.

***Interpretive Groups***

*Land capability classification:* 4w

*Forestland ordination symbol:* 9W for loblolly pine

## **LpA—Leeper silty clay loam, 0 to 1 percent slopes, frequently flooded**

### ***Setting***

*Landscape:* Blackland Prairie  
*Landform:* Flood plains  
*Landform position:* Planar to slightly concave slopes  
*Shape of areas:* Long and narrow  
*Size of areas:* 5 to 100 acres

### ***Composition***

Leeper and similar soils: 85 percent  
Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*  
0 to 4 inches—very dark grayish brown silty clay loam

*Subsoil:*  
4 to 12 inches—dark brown clay loam that has dark yellowish brown and dark gray mottles  
12 to 21 inches—dark grayish brown clay that has very dark grayish brown and dark yellowish brown mottles  
21 to 30 inches—dark gray silty clay that has very dark brown mottles  
30 to 45 inches—gray clay that has dark yellowish brown and strong brown mottles

*Substratum:*  
45 to 60 inches—light olive brown clay that has yellowish brown and grayish brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep  
*Drainage class:* Somewhat poorly drained  
*Permeability:* Very slow  
*Available water capacity:* High  
*Seasonal high water table:* At a depth of 1 to 2 feet from December through April  
*Shrink-swell potential:* High  
*Flooding:* Frequent  
*Hazard of water erosion:* Moderate  
*Content of organic matter in the surface layer:* Moderate  
*Tilth:* Fair  
*Depth to bedrock:* More than 80 inches  
*Other distinctive properties:* Subject to scouring and deposition during flooding

### ***Minor Components***

*Dissimilar soils:*

- Boswell soils, which have a red subsoil and are on toeslopes
- Ichusa soils, which have an acid subsoil and are on toeslopes and on small knolls that are not subject to flooding

*Similar soils:*

- Urbo soils, which have an acid subsoil
- Small areas that have a sandy overwash

### ***Land Use***

**Dominant uses:** Forestland and pasture  
**Other uses:** Cropland

### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Corn and small grains

*Management concerns:* Flooding, wetness, and equipment use

*Management measures and considerations:*

- Restricting field work to periods when the soil is not wet minimizes rutting and the compaction of the surface layer caused by the high content of clay.
- Incorporating crop residue into the soil or leaving residue on the surface minimizes clodding and crusting, maximizes infiltration of water, and improves tilth and fertility.
- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Seedbed preparation and spring cultivation are sometimes delayed because of wetness.
- Although most of the flooding occurs during the winter and early spring, crop loss may occur during the growing season.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Dallisgrass, bahiagrass, and bermudagrass

*Management concerns:* Wetness, flooding, and equipment use

*Management measures and considerations:*

- Restricting field work to periods when the soil is not wet minimizes rutting and the compaction of the surface layer caused by the high content of clay.
- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Flooding is a hazard, but because it typically occurs during the winter and early spring, livestock grazing and hay production can be restricted to periods when the flooding is less likely. Flooding, however, can occur during any period of heavy rainfall, and damage can be expected during these periods.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for eastern cottonwood and American sycamore

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Harvesting timber during the summer months reduces the risk of damage from the flooding.
- Natural regeneration of hardwood species is readily obtained on all openings of  $\frac{1}{2}$  acre or larger.
- If pines are planted, they should be on raised beds and should be planted or seeded by hand. Pine growth is slowed somewhat by the soil pH, which is above 6.0. Toxic effects tend to show up where the pH is above 6.5.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—fair

*Management concerns:* Wetness and flooding

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Dwellings**

*Suitability:* Unsited

*Management concerns:* Flooding and shrink-swell potential

*Management measures and considerations:*

- This map unit is severely limited as a site for dwellings. A site that has better suited soils should be selected.

### **Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Flooding, wetness, and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Flooding, shrink-swell potential, and low strength

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness and flooding.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and flooding

*Management measures and considerations:*

- A surface or subsurface drainage system may be needed in some areas.
- This map unit is difficult to manage because of the flooding, which severely limits use during periods of inundation.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

## ***Interpretive Groups***

*Land capability classification:* 4w

*Forestland ordination symbol:* 11W

## **LrD—Lorman fine sandy loam, 5 to 15 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and shoulder slopes

*Shape of areas:* Irregular

*Size of areas:* 10 to 400 acres

### ***Composition***

Lorman and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—dark gray fine sandy loam

*Subsurface layer:*

3 to 9 inches—light yellowish brown fine sandy loam

9 to 12 inches—yellowish brown loam that has strong brown mottles

*Subsoil:*

12 to 18 inches—yellowish red clay that has brownish gray and strong brown mottles

18 to 35 inches—red clay that has strong brown and light brownish gray mottles

35 to 47 inches—light olive gray silty clay that has light brownish gray and red mottles

47 to 54 inches—light olive gray clay loam that has light brownish gray and red mottles

54 to 67 inches—light brownish gray silty clay loam that has strong brown mottles

*Substratum:*

67 to 73 inches—light brownish gray silty clay loam that has yellowish red mottles

73 to 81 inches—light brownish gray stratified layers of clay loam, loam, and sandy loam having strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* High

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Moderate

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Moderately well drained Freest soils, which have a subsoil that is brownish in the upper part and has less clay than the subsoil of the Lorman soil; on toeslopes and ridges
- Moderately well drained Petal soils, which have a subsoil that is reddish in the upper part and has less clay than the subsoil of the Lorman soil; in positions similar to those of the Lorman soil
- Well drained Ruston soils, which have a red, loamy subsoil and are on ridges and toeslopes
- Well drained Smithdale soils, which have a red, loamy subsoil and are in positions similar to those of the Lorman soil

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- Well drained Heidel soils, which have a red, loamy subsoil and are in positions similar to those of the Lorman soil

### *Similar soils:*

- Soils that have a thicker, sandy surface than the Lorman soil
- Somewhat poorly drained Susquehanna soils along narrow ridges and toeslopes
- Soils that have an eroded surface

## **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture

### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Leaving crop residue on the surface helps to conserve soil moisture.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bermudagrass and bahiagrass

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Proper stocking rates, pasture rotation, weed control, and brush control help to keep the pasture and soil in good condition.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Using improved varieties of loblolly pine increases productivity.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.

- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 6e

*Forestland ordination symbol:* 8C

## **LrE—Lorman fine sandy loam, 15 to 35 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Oblong

*Size of areas:* 10 to 75 acres

### ***Composition***

Lorman and similar soils: 80 percent

Dissimilar soils: 20 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—dark gray fine sandy loam

*Subsurface layer:*

3 to 9 inches—light yellowish brown fine sandy loam

9 to 12 inches—yellowish brown loam that has strong brown mottles

*Subsoil:*

12 to 18 inches—yellowish red clay that has brownish gray and strong brown mottles

18 to 35 inches—red clay that has strong brown and light brownish gray mottles

35 to 47 inches—light olive gray silty clay that has light brownish gray and red mottles

47 to 54 inches—light olive gray clay loam that has light brownish gray and red mottles

54 to 67 inches—light brownish gray silty clay loam that has strong brown mottles

*Substratum:*

67 to 73 inches—light brownish gray silty clay loam that has yellowish red mottles

73 to 81 inches—light brownish gray stratified layers of clay loam, loam, and sandy loam having strong brown mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* High

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Moderate

*Tilth:* Good

### **Minor Components**

#### *Dissimilar soils:*

- Moderately well drained Petal soils, which have a subsoil that is reddish in the upper part and that has less clay than the subsoil of the Lorman soil; in positions similar to those of the Lorman soil
- Well drained McLaurin soils, which have a red, loamy subsoil and are on ridges and toeslopes
- Well drained Smithdale soils, which have a red, loamy subsoil and are in positions similar to those of the Lorman soil
- Well drained Heidel soils, which have a red, loamy subsoil and are in positions similar to those of the Lorman soil

#### *Similar soils:*

- Soils that have a surface layer that is sandier than the that of the Lorman soil and that is more than 20 inches thick
- Somewhat poorly drained Susquehanna soils on narrow ridges and toeslopes
- Small areas of soil that have a severely eroded surface

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** None

#### **Cropland**

*Suitability:* Unsited

*Commonly grown crops:* None

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the slope. A site that has better suited soils should be selected.

#### **Pasture and hayland**

*Suitability:* Poorly suited to pasture; unsited to hayland

*Commonly grown crops:* None

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- This map unit is difficult to manage for pasture and hayland because of the slope.
- The construction of trails encourages livestock to graze in areas where access is otherwise limited.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- Lime, fertilizer, seed, and herbicides can be applied by hand to increase productivity in the steeper areas.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.

#### **Forestland**

*Suitability:* Suited

*Productivity class:* Moderately high for loblolly pine

*Management concerns:* Erodibility, equipment use, and plant competition

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

- Cable logging methods help to overcome equipment limitations and reduce the hazard of erosion caused by road construction, skid trails, and heavy machinery.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability and slope

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength, shrink-swell potential, and slope

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

#### **Lawns and landscaping**

*Suitability:* Poorly suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 8R

## **LtD—Lorman-Petal complex, 5 to 15 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and shoulder slopes

*Shape of areas:* Irregular

*Size of areas:* 25 to 125 acres

### ***Composition***

The composition of this map unit is variable. Some areas consist mainly of the Lorman soil, some consist of mainly Petal soils, and some a mixture of Lorman and Petal soils in variable proportions. The composition of a representative unit is:

Lorman and similar soils: 60 percent

Petal and similar soils: 30 percent

Dissimilar soils: 10 percent

### ***Typical Profiles***

#### **Lorman**

*Surface layer:*

0 to 3 inches—dark gray fine sandy loam

*Subsurface layer:*

3 to 9 inches—light yellowish brown fine sandy loam

9 to 12 inches—yellowish brown loam that has strong brown mottles

*Subsoil:*

12 to 18 inches—yellowish red clay that has brownish gray and strong brown mottles

18 to 35 inches—red clay that has strong brown and light brownish gray mottles

35 to 47 inches—light olive gray silty clay that has light brownish gray and red mottles

47 to 54 inches—light olive gray clay loam that has light brownish gray and red mottles

54 to 67 inches—light brownish gray silty clay loam that has strong brown mottles

*Substratum:*

67 to 73 inches—light brownish gray silty clay loam that has yellowish red mottles

73 to 81 inches—light brownish gray stratified layers of clay loam, loam, and sandy loam having strong brown mottles

#### **Petal**

*Surface layer:*

0 to 2 inches—very dark grayish brown fine sandy loam

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### *Subsurface layer:*

2 to 6 inches—dark grayish brown fine sandy loam

6 to 9 inches—yellowish brown fine sandy loam

### *Subsoil:*

9 to 19 inches—yellowish red sandy clay loam

19 to 27 inches—red sandy clay loam that has strong brown and light brownish gray mottles

27 to 49 inches—brownish yellow clay that has strong brown and gray mottles

49 to 62 inches—light brownish gray clay that has red and gray mottles

62 to 72 inches—brownish yellow clay that has red and gray mottles

72 to 81 inches—light gray clay that has red and pinkish gray mottles

## **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Lorman—very slow; Petal—slow

*Available water capacity:* High

*Seasonal high water table:* Lorman—none within a depth of 6 feet; Petal—perched, at a depth of 1½ to 2½ feet from January through April

*Shrink-swell potential:* Lorman—very high; Petal—high

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Moderate

*Tilth:* Good

## **Minor Components**

### *Dissimilar soils:*

- Well drained Benndale soils, which have a subsoil that is yellow and that has less clay than the subsoil of the major soils; on toeslopes and ridges
- Well drained Smithdale soils, which have a subsoil that has less clay than the subsoil of the major soils; on short, narrow, steep slopes

### *Similar soils:*

- Soils that have a thick, sandy surface layer
- Somewhat poorly drained Susquehanna soils on narrow ridges and toeslopes
- Moderately well drained Freest soils, which have a subsoil that is brownish in the upper part and that has less clay than the subsoil of the major soils; on toeslopes and ridges
- Eroded areas that have a surface layer that has more clay than the surface layer of the major soils

## **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture

### **Cropland** (fig. 5)

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

### *Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Leaving crop residue on the surface helps to conserve soil moisture.



**Figure 5.—A blueberry patch in an area of Lorman-Petal complex, 5 to 15 percent slopes. Blueberries are a specialty crop in the county.**

- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bermudagrass, bahiagrass, and ryegrass

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Proper stocking rates, pasture rotation, weed control, and brush control help to keep the pasture and soil in good condition.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Lorman—moderately high for loblolly pine; Petal—high for loblolly pine

*Management concerns:* Equipment use, erosion, and plant competition

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.

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- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Using improved varieties of loblolly pine increases productivity.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and slope

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.

- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Restricting the use of heavy equipment to periods when the soil is not wet minimizes compaction and root damage.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 6e

*Forestland ordination symbol:* Lorman—8C; Petal—9A

**LuA—Louin silty clay, 0 to 2 percent slopes**

***Setting***

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Broad flats on ridges

*Shape of areas:* Irregular

*Size of areas:* 10 to 100 acres

***Composition***

Louin and similar soils: 95 percent

Dissimilar soils: 5 percent

***Typical Profile***

*Surface layer:*

0 to 1 inch—very dark grayish brown silty clay

*Subsurface layer:*

1 to 3 inches—brown silty clay loam

*Subsoil:*

3 to 6 inches—yellowish brown silty clay

6 to 11 inches—yellowish brown silty clay that has pale brown and red mottles

11 to 25 inches—yellowish brown clay that has light brownish gray and yellowish red mottles

25 to 41 inches—yellowish brown clay that has light gray mottles

41 to 60 inches—light olive brown clay that has light gray mottles

60 to 72 inches—yellowish brown clay that has light brownish gray and strong brown mottles

72 to 82 inches—brownish yellow clay that has light gray mottles

***Soil Properties and Qualities***

*Potential rooting depth:* More than 60 inches

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

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*Available water capacity:* High

*Seasonal high water table:* Perched, at a depth of 1½ to 3 feet from January through April

*Shrink-swell potential:* Very high

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Moderate

*Tilth:* Poor

*Other distinctive properties:* Distinct gilgai microrelief

### **Minor Components**

*Dissimilar soils:*

- Urbo soils on flood plains and in drainageways
- Boswell soils, which have a red subsoil and are on knolls and slope breaks

*Similar soils:*

- Ichusa soils, which do not have distinct gilgai relief and are on the more sloping ridges
- Small areas that have a surface layer of silt loam

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture and cropland

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Small grains

*Management concerns:* Wetness and equipment use

*Management measures and considerations:*

- Restricting field work to periods when the soil is not wet minimizes rutting and the compaction of the surface layer caused by the high content of clay.
- Incorporating crop residue into the soil or leaving residue on the surface minimizes clodding and crusting, maximizes infiltration of water, and improves tilth and fertility.
- Seedbed preparation and spring cultivation can be delayed because of wetness.
- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Bahiagrass, bermudagrass, and clover

*Management concerns:* Wetness, equipment use, and ponding

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Restricting field work to periods when the soil is not wet minimizes rutting and the compaction of the surface layer caused by the high content of clay.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine and shortleaf pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- The high seedling mortality rate can be partially overcome by planting on raised beds or by hand planting or seeding.
- If pines are planted, site preparation is needed to control plant competition.
- Natural regeneration of hardwood species is readily obtained on all openings of  $\frac{1}{2}$  acre or larger.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—good

*Management concerns:* Equipment use and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Wetness and shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or back filling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Constructing dwellings on raised, well-compacted fill material and using artificial drainage reduces the risk of damage from wetness.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability and wetness

*Management measures and considerations:*

- Accessing the outlets of the public sewage system eliminates the need to use this severely limited soil as a site for a septic tank system.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell, low strength, and wetness

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Constructing roads on raised, well-compacted fill material helps to overcome the wetness.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.

**Lawns and landscaping**

*Suitability:* Poorly suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Surface field ditches remove surface water and help to overcome the wetness.
- Restricted use during wet periods minimizes compaction.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3w

*Forestland ordination symbol:* 8C for loblolly pine

**LvA—Lucedale sandy loam, 0 to 2 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits of broad ridges

*Shape of areas:* Irregular

*Size of areas:* 5 to 160 acres

***Composition***

Lucedale and similar soils: 95 percent

Dissimilar soils: 5 percent

***Typical Profile***

*Surface layer:*

0 to 6 inches—very dark grayish brown sandy loam

*Subsurface layer:*

6 to 9 inches—red sandy loam

*Subsoil:*

9 to 20 inches—dark red sandy clay loam

20 to 45 inches—dark red sandy clay loam

45 to 64 inches—dark red clay loam

64 to 85 inches—dark red sandy clay loam

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

***Minor Components***

*Dissimilar soils:*

- Paxville soils, which have a grayish subsoil; in the slightly lower, depressional areas that are subject to ponding

*Similar soils:*

- Ruston soils, which don't have a dark surface layer and are in the slightly higher areas
- McLaurin soils, which don't have a dark surface layer, have more sand in the subsoil than the Lucedale soil, and are in the slightly higher areas
- Small areas that have a surface layer that is dark and more than 15 inches thick

***Land Use***

**Dominant uses:** Cropland and pasture

**Other uses:** Forestland

**Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* None

*Management measures and considerations:*

- Incorporating crop residue into the soil or leaving residue on the surface minimizes crusting and maximizes infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* None

*Management measures and considerations:*

- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect forestland management.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

**Septic tank absorption fields**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 1

*Forestland ordination symbol:* 9A

**MaA—Malbis fine sandy loam, 0 to 2 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and footslopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 150 acres

***Composition***

Malbis and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 3 inches—brown fine sandy loam

3 to 9 inches—dark yellowish brown fine sandy loam that has yellowish brown mottles

*Subsoil:*

9 to 29 inches—yellowish brown loam

29 to 44 inches—yellowish brown loam that has red, light brownish gray, and yellow mottles

44 to 56 inches—strong brown loam that has red and light gray mottles

56 to 68 inches—reddish yellow loam that has red and brownish yellow mottles

68 to 82 inches—yellowish brown sandy clay loam that has strong brown and light gray mottles

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

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*Drainage class:* Well drained

*Permeability:* Moderate in the upper part of the subsoil and moderately slow in the lower part of the subsoil

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 2½ to 4 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Well drained Benndale soils, which have less clay in subsoil than the Malbis soil and are on shoulder slopes
- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Malbis soil
- Well drained McLaurin and Ruston soils, which have a reddish subsoil and are on slope breaks in positions similar to those of the Malbis soil
- Well drained Smithdale soils, which have a reddish subsoil and are on short, steeper slope breaks

*Similar soils:*

- Moderately well drained Irvington soils, which have a fragipan
- Small areas that do not have plinthite

### **Land Use**

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* None

*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass and bermudagrass

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Vegetating cleared and graded areas as soon as possible or installing silt fences helps to maintain soil stability and to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- Septic tank absorption fields are severely limited because of the restricted permeability. This limitation can be partly overcome by increasing the size of the absorption field and using suitable fill material to raise the absorption field.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Installing the distribution lines during dry periods helps to control smearing.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

**Interpretive Groups**

*Land capability classification:* 1

*Forestland ordination symbol:* 9A

## **MaB—Malbis fine sandy loam, 2 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridges

*Shape of areas:* Irregular

*Size of areas:* 5 to 250 acres

### ***Composition***

Malbis and similar soils: 90 percent

Dissimilar soils: 10 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—brown fine sandy loam

3 to 9 inches—dark yellowish brown fine sandy loam that has yellowish brown mottles

*Subsoil:*

9 to 29 inches—yellowish brown loam

29 to 44 inches—yellowish brown loam that has red, light brownish gray, and yellow mottles

44 to 56 inches—strong brown loam that has red and light gray mottles

56 to 68 inches—reddish yellow loam that has red and brownish yellow mottles

68 to 82 inches—yellowish brown sandy clay loam that has strong brown and light gray mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate in the upper part of the subsoil and moderately slow in the lower part of the subsoil

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 2½ to 4 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Malbis soil
- Moderately well drained, clayey Lorman soils on short, steeper side slopes
- Well drained McLaurin and Ruston soils, which have a reddish subsoil and are on slope breaks in positions similar to those of the Malbis soil
- Well drained Smithdale soils, which have a reddish subsoil and are on the steeper side slopes

*Similar soils:*

- Moderately well drained Irvington soils, which have a fragipan
- Small areas that do not have plinthite

## ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass and bermudagrass

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Wetness, erodibility, and root penetration

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Septic tank absorption fields are severely limited because of the restricted permeability. This limitation can be partly overcome by increasing the size of the absorption field and using suitable fill material to raise the absorption field.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Designing roads to safely remove surface runoff improves soil performance and helps to control erosion.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9A

**MaC—Malbis fine sandy loam, 5 to 8 percent slopes*****Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Shoulder slopes of ridges; side slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 125 acres

***Composition***

Malbis and similar soils: 80 percent

Dissimilar soils: 20 percent

### ***Typical Profile***

*Surface layer:*

0 to 3 inches—brown fine sandy loam

3 to 9 inches—dark yellowish brown fine sandy loam that has yellowish brown mottles

*Subsoil:*

9 to 29 inches—yellowish brown loam

29 to 44 inches—yellowish brown loam that has red, light brownish gray, and yellow mottles

44 to 56 inches—strong brown loam that has red and light gray mottles

56 to 68 inches—reddish yellow loam that has red and brownish yellow mottles

68 to 82 inches—yellowish brown sandy clay loam that has strong brown and light gray mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate in the upper part of the subsoil and moderately slow in the lower part of the subsoil

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 2½ to 4 feet from December through March

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Malbis soil; on narrow ridges
- Moderately well drained, clayey Lorman soils on short, steeper side slopes
- Well drained McLaurin and Ruston soils, which have a reddish subsoil and are on slope breaks in positions similar to those of the Malbis soil
- Well drained Smithdale soils, which have a reddish subsoil and are on the steeper side slopes

*Similar soils:*

- Moderately well drained Irvington soils, which have a fragipan
- Moderately well drained Petal soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Malbis soil
- Small areas that don't have plinthite

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, conservation tillage, stripcropping, contour farming, crop residue management, and

soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.

- Restricting tillage to dry periods minimizes clodding and crusting and increases infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass and bermudagrass

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* Erodibility

*Management measures and considerations:*

- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Restricting logging operations to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Wetness, erodibility, and root penetration

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields.

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Increasing the size of absorption field and placing the distribution lines on the contour improve the performance of the system.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour of the slope reduces the hazard of erosion and increases the rate of water infiltration.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9A

**MbE—Maubila-Olla-Rattlesnake Forks complex, 8 to 35 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Maubila—knolls and shoulder slopes; Olla—summits and shoulder slopes; Rattlesnake Forks—side slopes and toeslopes

*Shape of areas:* Irregular

*Size of areas:* 10 to 250 acres

***Composition***

Maubila and similar soils: 35 percent

Olla and similar soils: 35 percent

Rattlesnake Forks and similar soils: 20 percent

Dissimilar soils: 10 percent

***Typical Profiles***

**Maubila**

*Surface layer:*

0 to 5 inches—dark grayish brown flaggy sandy loam

*Subsurface layer:*

5 to 8 inches—yellowish brown flaggy sandy loam

*Subsoil:*

8 to 15 inches—strong brown clay loam that has red mottles

15 to 22 inches—strong brown clay that has red and light yellowish brown mottles

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22 to 42 inches—mottled yellowish red, light gray, and weak red clay  
42 to 55 inches—light gray clay loam that has red, yellowish red, and brownish yellow mottles

*Substratum:*

55 to 80 inches—mottled weak red, light gray, and brownish yellow clay

**Olla**

*Surface layer:*

0 to 4 inches—brown loamy fine sand

*Subsurface layer:*

4 to 13 inches—brownish yellow loamy fine sand

*Subsoil:*

13 to 22 inches—yellowish brown sandy clay loam

22 to 37 inches—yellowish brown fine sandy loam

*Substratum:*

37 to 80 inches—brownish yellow sandy clay loam that has yellowish red, light gray, and very pale brown mottles

**Rattlesnake Forks**

*Surface layer:*

0 to 6 inches—dark yellowish brown loamy sand

*Subsurface layer:*

6 to 50 inches—yellowish brown loamy sand

*Subsoil:*

50 to 55 inches—strong brown sand

55 to 80 inches—reddish yellow and yellowish red sand that has coated grains

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Maubila—moderately well drained; Olla—well drained; Rattlesnake Forks—somewhat excessively drained

*Permeability:* Maubila—slow; Olla—moderately slow; Rattlesnake Forks—moderately rapid

*Available water capacity:* Moderate or low

*Seasonal high water table:* Maubila—perched, at a depth of 2 feet; Olla and Rattlesnake Forks—none within a depth of 6 feet

*Shrink-swell potential:* Olla—low; Maubila—moderate; Rattlesnake Forks—low

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Low

*Depth to bedrock:* More than 80 inches

### ***Minor Components***

*Dissimilar soils:*

- Sandy Boykin and Wadley soils on knolls and shoulder slopes
- Clayey, well drained Luverne soils in positions similar to those of the Maubila soil
- Loamy Smithdale soils, which have a reddish subsoil and are on shoulder slopes and knolls

*Similar soils:*

- Scattered areas of Maubila soils that have rounded pebbles and cobbles of quartzite in the surface and subsurface layers
- Scattered areas of Maubila soils that have surface and subsurface layers of sandy loam or loamy sand

## ***Land Use***

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture

### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Corn, cotton, and soybeans

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- This map unit is difficult to till because of the high content of rock fragments in the surface layer of the Maubila soil. In some areas, large stones on the surface can interfere with the use of tillage equipment.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Coastal bermudagrass and bahiagrass

*Management concerns:* Erodibility, equipment use, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- The high content of rock fragments in the surface layer of the Maubila soil restricts the use of mechanical planting.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small

tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

#### **Dwellings**

*Suitability:* Maubila and Rattlesnake Forks—poorly suited; Olla—well suited

*Management concerns:* Maubila—shrink-swell potential and wetness; Olla—no significant limitations; Rattlesnake Forks—seepage

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling in areas of the Maubila soil.
- Large stones and boulders may be encountered during excavation.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

#### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Maubila—restricted permeability and wetness; Olla—restricted permeability; Rattlesnake Forks—seepage and poor filtering capacity

*Management measures and considerations:*

- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system in areas of the Maubila soil.
- Lining the trench walls improves the filtering capacity in areas that have coarse fragments.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Maubila—suited; Olla—well suited; Rattlesnake Forks—poorly suited

*Management concerns:* Maubila—low strength and shrink-swell potential; Olla—no significant limitations; Rattlesnake Forks—seepage and piping

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Maubila soil.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

### ***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 9A

## **MdA—McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* McCrory—flat and slightly concave slopes; Deerford—slightly convex slopes

*Shape of areas:* Oblong

*Size of areas:* 5 to 250 acres

### ***Composition***

McCrory and similar soils: 60 percent  
Deerford and similar soils: 30 percent  
Dissimilar soils: 10 percent

### ***Typical Profiles***

#### **McCrory**

##### *Surface layer:*

0 to 4 inches—brown silt loam

##### *Subsurface layer:*

4 to 9 inches—light brownish gray silt loam that has brownish mottles

##### *Subsoil:*

9 to 14 inches—light brownish gray silt loam that has yellowish brown mottles

14 to 23 inches—yellowish brown and light brownish gray loam that has gray mottles

23 to 35 inches—gray loam that has dark gray and yellowish brown mottles

35 to 47 inches—light brownish gray loam that has dark gray and yellowish brown mottles

47 to 58 inches—grayish brown fine sandy loam that has strong brown and yellowish brown mottles

##### *Substratum:*

58 to 72 inches—grayish brown fine sandy loam that has strong brown and yellowish brown mottles

#### **Deerford**

##### *Surface layer:*

0 to 3 inches—very dark grayish brown loam

##### *Subsurface layer:*

3 to 7 inches—grayish brown very fine sandy loam that has pale brown mottles

7 to 10 inches—light brownish gray and pale brown very fine sandy loam

##### *Subsoil:*

10 to 27 inches—light olive brown sandy clay loam that has light gray mottles

27 to 35 inches—light olive brown clay loam that has light gray and strong brown mottles

35 to 49 inches—light brownish gray loam that has olive yellow mottles

49 to 61 inches—light brownish gray very fine sandy loam that has yellowish brown and olive brown mottles

##### *Substratum:*

61 to 80 inches—light gray very fine sandy loam that has yellowish brown mottles

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* McCrory—poorly drained; Deerford—somewhat poorly drained

*Permeability:* Slow

*Available water capacity:* Moderate

*Seasonal high water table:* McCrory—perched, at the surface to a depth of 1 foot from December through April; Deerford—perched, at a depth of 1/2 to 1 1/2 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* Occasional for brief periods

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Moderate

*Depth to bedrock:* More than 80 inches

### **Minor Components**

*Dissimilar soils:*

- Poorly drained Bibb and moderately well drained luka soils on narrow flood plains

*Similar soils:*

- Scattered areas of soils that are similar to the McCrory and Deerford soils but do not have a significant content of exchangeable sodium within a depth of 40 inches

### **Land Use**

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture and hayland

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Soybeans and grain sorghum

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is difficult to manage for crop production because of the hazard of flooding during the growing season.
- Installing and maintaining a drainage system that includes open ditches, perforated tile, or land shaping helps to overcome the wetness and increases productivity.
- Restricting tillage to periods when the soils are dry minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Poorly suited

*Commonly grown crops:* Bahiagrass, common bermudagrass, and white clover

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Although most of the flooding occurs during the winter and spring, livestock and hay can be damaged any time of the year.
- Well maintained drainageways and ditches help to remove excess water.
- Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to minimize compaction, maintain productivity, and keep the pasture in good condition.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Suited

*Productivity class:* McCrory—high for loblolly pine and hardwoods; Deerford—very high for loblolly pine and hardwoods

*Management concerns:* Equipment use, seedling survival, and plant competition

*Management measures and considerations:*

- This map unit is difficult to manage for loblolly pine because of excessive exchangeable sodium, which retards growth and causes higher than normal mortality in seedlings and mature trees. Reforestation by managing for natural regeneration of hardwoods or by establishing loblolly pine plantations for pulpwood should be considered.
- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes rutting and compaction.
- Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—fair

*Management concerns:* Flooding, equipment use, and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Dwellings**

*Suitability:* Unsited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is very limited as a site for dwellings because of the flooding and wetness. A site that has better suited soils should be selected.

**Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Flooding, wetness, and restricted permeability

*Management measures and considerations:*

- This map unit is difficult to manage as a site for septic tank absorption fields because of the flooding and the seasonal high water table.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Flooding, wetness, and low strength

*Management measures and considerations:*

- Constructing roads on raised, well-compacted fill material helps to overcome the flooding, the wetness, and the low strength of the natural soil material.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.

***Interpretive Groups***

*Land capability classification:* 4w

*Forestland ordination symbol:* McCrory—5w; Deerford—10W

**MrA—McLaurin fine sandy loam, 0 to 2 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Broad ridges

## Soil Survey of Wayne County, Mississippi

*Shape of areas:* Irregular  
*Size of areas:* 5 to 65 acres

### **Composition**

McLaurin and similar soils: 85 percent  
Dissimilar soils: 15 percent

### **Typical Profile**

*Surface layer:*  
0 to 6 inches—dark brown fine sandy loam

*Subsoil:*  
6 to 14 inches—yellowish red sandy loam that has reddish brown mottles  
14 to 28 inches—yellowish red sandy loam  
28 to 32 inches—red sandy loam  
32 to 38 inches—red sandy loam that has yellowish brown mottles  
38 to 80 inches—red sandy loam

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep  
*Drainage class:* Well drained  
*Permeability:* Moderate  
*Available water capacity:* Moderate  
*Seasonal high water table:* None within a depth of 6 feet  
*Shrink-swell potential:* Low  
*Flooding:* None  
*Hazard of water erosion:* Slight  
*Content of organic matter in the surface layer:* Low  
*Tilth:* Good  
*Depth to bedrock:* More than 80 inches

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained Malbis soils, which have a brown subsoil that has plinthite in the lower part

*Similar soils:*

- Small areas of Lucedale soils, which have a surface layer that is dark and more than 15 inches thick
- Small areas of McLaurin soils that have less clay in the subsoil

### **Land Use**

**Dominant uses:** Cropland and pasture  
**Other uses:** Forestland

#### **Cropland**

*Suitability:* Well suited  
*Commonly grown crops:* Row crops, small grains, and truck crops  
*Management concerns:* None  
*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited  
*Commonly grown crops:* Bahiagrass, bermudagrass, and ryegrass

## Soil Survey of Wayne County, Mississippi

*Management concerns:* None

*Management measures and considerations:*

- Proper stocking rates, controlled grazing, weed control, and brush control help to keep the pasture and soil in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- Limitations affecting forestland management are slight.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

### **Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.

### **Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.

### **Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

## **Interpretive Groups**

*Land capability classification:* 2s

*Forestland ordination symbol:* 9A

## **MrB—McLaurin fine sandy loam, 2 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulder slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 250 acres

### ***Composition***

McLaurin and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 6 inches—dark brown fine sandy loam

*Subsoil:*

6 to 14 inches—yellowish red sandy loam that has reddish brown mottles

14 to 28 inches—yellowish red sandy loam

28 to 32 inches—red sandy loam

32 to 38 inches—red sandy loam that has yellowish brown mottles

38 to 80 inches—red sandy loam

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Well drained Lucedale soils, which have a surface layer that is darker than the surface layer of the McLaurin soil and a subsoil that is darker red; on ridge summits and in the slightly lower areas
- Well drained Heidel soils on short, steep side slopes
- Well drained Smithdale soils, which have more clay in the subsoil than the McLaurin soil; on short, steep side slopes

*Similar soils:*

- Small areas that have an eroded surface layer that has more clay than the surface layer of the McLaurin soil
- Small areas that have a thin layer with more clay at the top of the subsoil

### ***Land Use***

**Dominant uses:** Cropland and forestland

**Other uses:** Pasture

**Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.
- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- Limitations affecting forestland management are slight.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and log landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

**Septic tank absorption fields**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9A

**MrC—McLaurin fine sandy loam, 5 to 8 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Ridges and toeslopes

*Landform position:* Shoulder slopes and toeslopes of side slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 125 acres

***Composition***

McLaurin and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 6 inches—dark brown fine sandy loam

*Subsoil:*

6 to 14 inches—yellowish red sandy loam that has reddish brown mottles

14 to 28 inches—yellowish red sandy loam

28 to 32 inches—red sandy loam

32 to 38 inches—red sandy loam that has yellowish brown mottles

38 to 80 inches—red sandy loam

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Heidel soils, which have more sand in the subsoil than the McLaurin soil and are on short, steeper side slopes
- Smithdale soils on short, steeper side slopes
- Somewhat excessively drained Wadley soils, which have a surface layer that is sandy and more than 40 inches thick; on short, steeper backslopes

*Similar soils:*

- Lucedale soils, which have a darker surface layer than the McLaurin soil, have a dark red subsoil, and are on footslopes
- Small areas that have a surface layer that is eroded and has more clay than the surface layer of the McLaurin soil
- Small areas that have a subsoil that is thin and clayey in the upper part

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland and poultry production (fig. 6)



**Figure 6.—An area of McLaurin fine sandy loam, 5 to 8 percent slopes, used for poultry production. The setting of this map unit is well suited for poultry production, which is a major enterprise in the county.**

### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes terraces, grassed waterways, contour farming, conservation tillage, crop residue management, stripcropping, and sod-based rotations reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erosion

*Management measures and considerations:*

- Limitations affecting forestland management are slight.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9A

**OmC—Olla-Maubila complex, 2 to 8 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Olla—summits and shoulder slopes; Maubila—knolls, shoulder slopes, and saddles

*Shape of areas:* Irregular

*Size of areas:* 10 to 250 acres

***Composition***

Olla and similar soils: 45 percent

Maubila and similar soils: 40 percent

Dissimilar soils: 15 percent

***Typical Profiles***

**Olla**

*Surface layer:*

0 to 4 inches—brown loamy fine sand

*Subsurface layer:*

4 to 13 inches—brownish yellow loamy fine sand

## Soil Survey of Wayne County, Mississippi

### *Subsoil:*

13 to 22 inches—yellowish brown sandy clay loam

22 to 37 inches—yellowish brown fine sandy loam

### *Substratum:*

37 to 80 inches—brownish yellow sandy clay loam that has yellowish red, light gray, and very pale brown mottles

### **Maubila**

#### *Surface layer:*

0 to 5 inches—dark grayish brown flaggy sandy loam

#### *Subsurface layer:*

5 to 8 inches—yellowish brown flaggy sandy loam

#### *Subsoil:*

8 to 15 inches—strong brown clay loam

15 to 22 inches—strong brown clay that has red and light yellowish brown mottles

22 to 42 inches—mottled brownish yellow, light gray, and weak red clay

42 to 55 inches—light gray clay loam that has red, yellowish red, and brownish yellow mottles

#### *Substratum:*

55 to 80 inches—mottled weak red, light gray, and brownish yellow clay

### ***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Olla—well drained; Maubila—moderately well drained

*Permeability:* Olla—moderately slow; Maubila—slow

*Available water capacity:* Moderate

*Seasonal high water table:* Olla—none within a depth of 6 feet; Maubila—perched, at a depth of 2 to 3½ feet from January through April

*Shrink-swell potential:* Olla—low; Maubila—moderate

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Low

*Depth to bedrock:* More than 80 inches

### ***Minor Components***

#### *Dissimilar soils:*

- Sandy Boykin and Wadley soils on knolls and shoulder slopes
- Clayey, well drained Luverne soils in positions similar to those of the Maubila soil
- Loamy Smithdale soils, which have a reddish subsoil and are on shoulder slopes and knolls

#### *Similar soils:*

- Scattered areas of Maubila soils that have rounded pebbles and cobbles of quartzite in the surface and subsurface layers
- Scattered areas of Maubila soils that have surface and subsurface layers of sandy loam or loamy sand

### ***Land Use***

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture

### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Corn, cotton, and soybeans

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Contour tillage, no-till planting, crop residue management, stripcropping, and a rotation that includes soil conserving crops reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- This map unit is difficult to till because of the high content of rock fragments in the surface layer of the Maubila soil. In some areas, large stones on the surface can interfere with the use of tillage equipment.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Coastal bermudagrass and bahiagrass

*Management concerns:* Erodibility, equipment use, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Suited

*Productivity class:* Olla—high for loblolly pine and longleaf pine; Maubila—moderate for loblolly pine and longleaf pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- The high content of rock fragments in the surface layer of the Maubila soil restricts the use of mechanical planting.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Special site preparation practices, such as harrowing and bedding, help to establish seedlings, reduce the seedling mortality rate, and increase early seedling growth.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Olla—well suited; Maubila—poorly suited

*Management concerns:* Olla—no significant limitations; Maubila—shrink-swell potential and wetness

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling in areas of the Maubila soil.
- Large stones and boulders may be encountered during excavation.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Olla—restricted permeability; Maubila—restricted permeability and wetness

*Management measures and considerations:*

- Installing the distribution lines on the contour and increasing the size of the absorption field improve the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system in areas of the Maubila soil.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Olla—well suited; Maubila—suited

*Management concerns:* Olla—no significant limitations; Maubila—low strength and shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Maubila soil.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.

***Interpretive Groups***

*Land capability classification:* Olla—3e; Maubila—4e

*Forestland ordination symbol:* Olla—9A; Maubila—8A

**PaA—Paxville loam, ponded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Upland depressions

*Landform position:* Slightly concave slopes

*Shape of areas:* Oblong

*Size of areas:* 5 to 30 acres

***Composition***

Paxville and similar soils: 95 percent

Dissimilar soils: 5 percent

***Typical Profile***

*Surface layer:*

0 to 2 inches—black loam

2 to 12 inches—black loam

12 to 15 inches—very dark gray silt loam

**Subsoil:**

- 15 to 34 inches—gray clay loam that has strong brown and red mottles
- 34 to 45 inches—light brownish gray sandy clay loam that has strong brown and yellowish red mottles
- 45 to 57 inches—light gray sandy clay loam that has strong brown mottles
- 57 to 65 inches—light gray sandy loam that has strong brown mottles
- 65 to 83 inches—light brownish gray sandy loam that has strong brown mottles

**Soil Properties and Qualities**

*Potential rooting depth:* More than 60 inches

*Drainage class:* Very poorly drained

*Permeability:* Moderate

*Available water capacity:* High

*Seasonal high water table:* Apparent, from 2½ feet above the surface to a depth of 1 foot from November through June

*Shrink-swell potential:* Low

*Depth of ponding:* 0.25 to 2.5 feet

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* High

*Tilth:* Good

**Minor Components**

**Dissimilar soils:**

- Small areas of sandy, very poorly drained soils in positions similar to those of the Paxville soil

**Similar soils:**

- Small areas of very poorly drained soils that have a thin, mucky surface layer
- Soils that have a thicker solum than the Paxville soil

**Land Use**

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Pasture

**Cropland**

*Suitability:* Unsited

*Commonly grown crops:* None

*Management concerns:* Ponding and wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the seasonal high water table and ponding. A site that has better suited soils should be selected.

**Pasture and hayland**

*Suitability:* Poorly suited

*Commonly grown crops (where the soil is drained):* Tall fescue and millet

*Management concerns:* Ponding and wetness

*Management measures and considerations:*

- Installing and maintaining a surface drainage system increases productivity.
- Although most ponding occurs during winter through early summer months, grasses and hay crops can be damaged any time of the year during wet periods.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Poorly suited

*Productivity class:* Moderate for bald cypress, water tupelo, and tupelo gum

*Management concerns:* Equipment use, seedling mortality, windthrow, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes the rutting and compaction that occurs when the soil is saturated.
- Harvesting timber during summer or fall reduces the risk of damage from ponding.
- Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate.

### **Wildlife habitat**

*Suitability:* Good

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—good

*Management concerns:* Ponding and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

### **Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

### ***Interpretive Groups***

*Land capability classification:* 6w

*Forestland ordination symbol:* 9W

## **Pd—Pits-Udorthents complex**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Variable

*Shape of areas:* Irregular

*Size of areas:* 4 to 130 acres

### ***Composition***

Pits and similar areas: 50 percent

Udorthents and similar soils: 40 percent

Dissimilar soils: 10 percent

### **Pits**

The Pits part of this map unit is a miscellaneous land type consisting of open excavations from which soil and the underlying gravel, sand, and clay have been removed for use at another location. The depth to which these materials are removed

extends to as much as 75 feet. The larger gravel pits are typically on the highest hills, mainly in the northwestern part of the county. Abandoned pits support little or no plant life. Typically, the remaining material consists of strata of sand, gravel, clay, and mixed earthy materials.

### **Udorthents**

The Udorthents part of this map unit consists of piles of soil and nonsoil materials that were mixed during mining operations, areas of abandon pits, and areas of soil that have been so severely eroded by water that soil horizons are beyond recognition. Most areas of this map unit support plant life, which consists of pines, grasses, and shrubs. Some areas also provide some wildlife habitat.

### ***Soil Properties and Qualities***

*Potential rooting depth:* Variable

*Drainage class:* Variable

*Permeability:* Variable

*Available water capacity:* Variable

*Seasonal high water table:* Variable

*Shrink-swell potential:* Variable

*Flooding:* None to rare

*Hazard of water erosion:* Pits—severe; Udorthents—variable

*Rock fragments on the surface:* Variable

*Extent of rock outcrop:* Variable

*Content of organic matter in the surface layer:* Variable

*Tilth:* Poor

*Reaction:* Extremely acid to strongly acid

*Parent material:* Sandy, loamy, and clayey sediments

*Depth to bedrock:* Variable

*Other distinctive properties:* Discontinuous layers, streaks, or pockets of variable textures; none to common bedrock fragments

### ***Minor Components***

*Dissimilar soils:*

- Boswell, Heidel, and Smithdale soils
- Ruston, Malbis, and Lorman soils on ridges and side slopes near the edges of mapped areas
- Small, intermittently ponded depressions

### ***Land Use***

**Dominant uses:** Source of sand, gravel, or fill material

**Other uses:** Wildlife and recreation

- This map unit is unsuited to most uses.
- Extensive reclamation efforts are required to make areas suitable for use as cropland, pasture, forestland, or for urban uses. Onsite investigation and testing is needed to determine the suitability of this map unit for any use.

### ***Interpretive Groups***

*Land capability classification:* 8s

*Forestland ordination symbol:* 6E

## **PeA—Prentiss fine sandy loam, 0 to 2 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces and uplands

## Soil Survey of Wayne County, Mississippi

*Landform position:* Undulating to slightly convex slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 120 acres

### **Composition**

Prentiss and similar soils: 90 percent

Dissimilar soils: 10 percent

### **Typical Profile**

*Surface layer:*

0 to 5 inches—very dark gray fine sandy loam

*Subsurface layer:*

5 to 8 inches—dark grayish brown fine sandy loam that has yellowish brown mottles

*Subsoil:*

8 to 19 inches—yellowish brown fine sandy loam that has pale brown and strong brown mottles

19 to 23 inches—yellowish brown fine sandy loam that has pale brown and strong brown mottles

23 to 37 inches—yellowish brown, light yellowish brown, and strong brown fine sandy loam

37 to 52 inches—strong brown, red, and pale brown fine sandy loam

52 to 65 inches—strong brown sandy clay loam that has strong brown and pale brown mottles

65 to 81 inches—strong brown, light gray, and red sandy clay loam

### **Soil Properties and Qualities**

*Potential rooting depth:* Moderately deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the upper part and moderately slow in the fragipan

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 2 to 2½ feet from January through March

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Other distinctive properties:* A fragipan at a depth of 23 to 29 inches

### **Minor Components**

*Dissimilar soils:*

- Well drained Cahaba soils, which have a subsoil that is red and has more clay than the subsoil of the Prentiss soil; bordering major streams
- Somewhat poorly drained Quitman soils, which have a subsoil that has more clay than the subsoil of the Prentiss soil; in the lower positions
- Somewhat poorly drained Stough soils in the lower positions

*Similar soils:*

- Savannah soils, which have a subsoil that has more clay than the subsoil of the Prentiss soil

### **Land Use**

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Corn, cotton, small grains, and truck crops

*Management concerns:* Wetness, root penetration, and soil fertility

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Chisel plowing and subsoiling help to break through hardpans and thereby increase root penetration and rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass and ryegrass

*Management concerns:* Wetness and root penetration

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Chisel plowing and subsoiling when seedbeds are prepared help to break through hardpans, increasing root penetration and the rate of rainfall infiltration.
- Artificial drainage may be needed to maximize productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* Plant competition and windthrow

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Special site preparation, such as subsoiling and bedding, help to establish seedlings, reduce the seedling mortality rate, increase early seedling growth, and reduce the hazard of windthrow.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Installing a subsurface drainage system helps to lower the seasonal high water table.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields because of the restricted permeability in the fragipan. This limitation can be partly overcome by increasing the size of the absorption field.
- This map unit is difficult to manage as a site for septic tank absorption fields because of the seasonal high water table.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Designing roads to safely remove surface runoff improves soil performance.
- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the wetness.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Droughtiness

*Management measures and considerations:*

- Rooting depth is restricted because of a fragipan in the lower part of the subsoil. The fragipan results in droughtiness.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 9W

**PwD—Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes**

***Setting***

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Prim and Watsonia—summits and shoulder slopes; Suggsville—summits, upper parts of backslopes, and saddles

## Soil Survey of Wayne County, Mississippi

*Shape of areas:* Irregular

*Size of areas:* 20 to 500 acres

### **Composition**

Prim and similar soils: 40 percent

Suggsville and similar soils: 35 percent

Watsonia and similar soils: 20 percent

Dissimilar soils: 5 percent

### **Typical Profiles**

#### **Prim**

*Surface layer:*

0 to 7 inches—black very cobbly clay loam

*Substratum:*

7 to 15 inches—olive gray extremely cobbly sandy loam

15 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

#### **Suggsville**

*Surface layer:*

0 to 1 inch—very dark brown clay

*Subsurface layer:*

1 to 4 inches—brown and reddish brown clay

*Subsoil:*

4 to 11 inches—yellowish red clay

11 to 21 inches—red clay

21 to 26 inches—strong brown and yellowish red clay

26 to 42 inches—strong brown clay that has black and yellowish red mottles

*Substratum:*

42 to 80 inches—light gray limestone that is interbedded with weathered chalk

#### **Watsonia**

*Surface layer:*

0 to 4 inches—brown clay

*Subsoil:*

4 to 17 inches—yellowish red clay

*Substratum:*

17 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

### **Soil Properties and Qualities**

*Depth class:* Prim and Watsonia—shallow; Suggsville—deep

*Drainage class:* Well drained

*Permeability:* Prim and Watsonia—moderate; Suggsville—very slow

*Available water capacity:* Prim and Watsonia—very low; Suggsville—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Prim and Watsonia—moderate; Suggsville—very high

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Moderate

*Depth to bedrock:* Prim and Watsonia—10 to 20 inches; Suggsville—40 to 60 inches

### **Minor Components**

*Dissimilar components:*

- Very deep, clayey Lorman soils on knolls, benches, and shoulder slopes

## Soil Survey of Wayne County, Mississippi

- Very deep, loamy Okeelala and clayey Brantley soils on the upper parts of slopes
- Suggsville and Prim soils that have slopes of more than 10 percent
- Prim soils that are extremely bouldery or extremely stony; on knolls, shoulder slopes, and nose slopes
- Scattered areas of limestone outcrop

### *Similar soils:*

- Scattered areas of Suggsville and Prim soils that have 5 to 15 percent rounded chert and quartzite fragments throughout the profile
- Scattered areas of shallow, loamy soils that have less than 35 percent rock fragments throughout the profile
- Scattered areas of soils that are similar to the Suggsville soils but have interbedded chalk and limestone bedrock at a depth of 20 to 40 inches

### **Land Use**

**Dominant uses:** Pasture

**Other uses:** Forestland

### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Soybeans and small grains

*Management concerns:* Erodibility, equipment use, rooting depth, and tillth

*Management measures and considerations:*

- This map unit is difficult to manage economically for crop production because of the shallow rooting depth in the Prim and Watsonia soils.
- In some areas, large stones on the surface can interfere with the use of tillage equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Contour tillage, strip cropping, no-till planting, and crop residue management reduce the hazard of erosion, help to control surface runoff, and maximize infiltration of rainfall.
- Tilling during dry periods and either incorporating crop residue into the surface or leaving it on the surface minimize clodding and crusting and maximize infiltration of water.

### **Pasture and hayland**

*Suitability:* Suited to pasture; unsuited to hayland

*Commonly grown crops:* Tall fescue, dallisgrass, and Johnsongrass

*Management concerns:* Erodibility, equipment use, and restricted rooting depth

*Management measures and considerations:*

- This map unit is difficult to manage economically for pasture and hayland because of the shallow rooting depth in the Prim and Watsonia soils.
- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.

### **Forestland**

*Suitability:* Suited

*Productivity class:* Prim and Watsonia—moderate for eastern redcedar; Suggsville—very high for loblolly pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Areas of the Prim and Watsonia soils are unsuited to pine production because they are too alkaline. Natural regeneration of hardwoods should be considered.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Suggsville soil.
- Restricting logging to periods when the soil is not wet minimizes rutting and the root damage caused by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.
- Planting seedlings on raised beds and increasing the number of seedlings planted help to compensate for the high rate of seedling mortality.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

**Wildlife habitat**

*Potential of the Prim and Watsonia soils to support habitat for:* Openland wildlife—poor; forestland wildlife—poor; wetland wildlife—very poor

*Potential of the Suggsville soil to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Equipment use, tillage, and erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Prim and Watsonia—depth to rock, large stones, and shrink-swell potential; Suggsville—shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Large stones and boulders may be encountered during excavation.
- The soft bedrock underlying the soils does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

**Septic tank absorption fields**

*Suitability:* Unsuited

*Management concerns:* Prim and Watsonia—depth to rock and large stones; Suggsville—depth to rock and restricted permeability

*Management measures and considerations:*

- This map unit is very limited as a site for septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Prim and Watsonia—depth to rock, large stones, and shrink-swell potential; Suggsville—shrink-swell potential and low strength

*Management measures and considerations:*

- The soft bedrock underlying the soils does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.
- Large stones and boulders may be encountered during excavation.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Suggsville soils.

### ***Interpretive Groups***

*Land capability classification:* Prim—6s; Suggsville—4e; Watsonia—6e

*Forestland ordination symbol:* Prim—4D; Suggsville and Watsonia—9C

## **PwF—Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes**

### ***Setting***

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Prim and Watsonia—summits of narrow ridges, shoulder slopes, upper parts of backslopes, and benches; Suggsville—footslopes and lower parts of backslopes

*Shape of areas:* Irregular

*Size of areas:* 20 to 1,500 acres

### ***Composition***

Prim and similar soils: 50 percent

Suggsville and similar soils: 20 percent

Watsonia and similar soils: 20 percent

Dissimilar soils: 10 percent

### ***Typical Profiles***

#### **Prim**

*Surface layer:*

0 to 7 inches—black very cobbly clay loam

*Substratum:*

7 to 15 inches—olive gray extremely cobbly sandy loam

15 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

#### **Suggsville**

*Surface layer:*

0 to 1 inch—very dark brown clay

*Subsurface layer:*

1 to 4 inches—brown and reddish brown clay

*Subsoil:*

4 to 11 inches—yellowish red clay

11 to 21 inches—red clay

21 to 26 inches—mottled strong brown and yellowish red clay

26 to 42 inches—strong brown clay that has black and yellowish mottles

*Substratum:*

42 to 80 inches—light gray limestone that is interbedded with weathered chalk

**Watsonia**

*Surface layer:*

0 to 4 inches—dark brown clay

*Subsoil:*

4 to 17 inches—yellowish red clay

*Substratum:*

17 to 80 inches—light gray chalk that is interbedded with lenses of hard limestone

***Soil Properties and Qualities***

*Depth class:* Prim and Watsonia—shallow; Suggsville—deep

*Drainage class:* Well drained

*Permeability:* Prim—moderate; Suggsville and Watsonia—very slow

*Available water capacity:* Prim and Watsonia—very low; Suggsville—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Prim—moderate; Suggsville and Watsonia—very high

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Moderate

*Depth to bedrock:* Prim and Watsonia—10 to 20 inches; Suggsville—40 to 60 inches

***Minor Components***

*Dissimilar components:*

- Poorly drained Bibb and moderately well drained luka soils on narrow flood plains
- Very deep, clayey Lorman soils on benches and shoulder slopes
- Very deep, loamy Okeelala and clayey Brantley soils on the upper parts of slopes
- Prim, Suggsville, and Watsonia soils that have slopes of less than 10 percent or more than 40 percent
- Prim soils that are extremely bouldery or extremely stony; on knolls, shoulder slopes, and nose slopes
- Scattered areas of limestone outcrop

*Similar soils:*

- Scattered areas of Prim and Suggsville soils that have 5 to 15 percent rounded fragments of chert and quartzite throughout the profile
- Scattered areas of shallow, loamy soils that have less than 35 percent rock fragments throughout the profile
- Scattered areas of soils that are similar to the Suggsville and Watsonia soils but have interbedded chalk and limestone bedrock at a depth of 20 to 40 inches

***Land Use***

**Dominant uses:** Forestland and wildlife habitat

**Cropland**

*Suitability:* Unsited

*Management concerns:* This map unit is very limited for crop production because of the slope. A site that has better suited soils should be selected.

**Pasture and hayland**

*Suitability:* Poorly suited to pasture; unsited to hayland

*Commonly grown crops:* Tall fescue, dallisgrass, and Johnsongrass

*Management concerns:* Erodibility, equipment use, and restricted rooting depth

*Management measures and considerations:*

- This map unit is difficult to manage economically for pasture and hayland because of the slope and the shallow rooting depth in the Prim and Watsonia soils.

- In some areas, large stones on the surface can interfere with the use of equipment. Removing the larger stones and limiting equipment use to the larger open areas minimize wear on the equipment.
- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.

### **Forestland**

*Suitability:* Poorly suited

*Productivity class:* Prim—moderate for eastern redcedar; Suggsville—very high for loblolly pine; Watsonia—high for loblolly pine

*Management concerns:* Erodibility, equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Areas of the Prim soil are unsuited to pine production because the soil is too alkaline. Natural regeneration of hardwoods should be considered.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in the Suggsville and Watsonia soils.
- Restricting logging to periods when the soil is not wet minimizes rutting and the root damage caused by compaction.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.
- Maintaining litter on the surface increases the water infiltration rate and reduces the seedling mortality rate.
- Planting seedlings on raised beds and increasing the number of seedlings planted help to compensate for the high rate of seedling mortality.
- Standard site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

### **Wildlife habitat**

*Potential of the Prim soil to support habitat for:* Openland wildlife—poor; forestland wildlife—poor; wetland wildlife—very poor

*Potential of the Suggsville soil to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Potential of the Watsonia soil to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Equipment use, tillage, and erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Prim—slope, depth to rock, large stones, and shrink-swell potential; Suggsville—slope and shrink-swell potential; Watsonia—slope, depth to rock, and shrink-swell potential

*Management measures and considerations:*

- Structures can be designed to conform to the natural slope or can be built in the less sloping areas.
- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Large stones and boulders may be encountered during excavation.
- The soft bedrock underlying the soils does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.

### **Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Prim—slope, depth to rock, and large stones; Suggsville and Watsonia—slope, depth to rock, and restricted permeability

*Management measures and considerations:*

- This map unit is very limited as a site for septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Prim—slope, depth to rock, large stones, and shrink-swell potential; Suggsville—slope, shrink-swell potential, and low strength; Watsonia—slope, depth to rock, low strength, and shrink-swell potential

*Management measures and considerations:*

- The soft bedrock underlying the soils does not require special equipment for excavation, but the material is difficult to revegetate and is difficult to pack if used as fill.
- Large stones and boulders may be encountered during excavation.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material in areas of the Suggsville and Watsonia soils.
- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

### ***Interpretive Groups***

*Land capability classification:* Prim—7s; Suggsville and Watsonia—7e

*Forestland ordination symbol:* Prim—4D; Suggsville and Watsonia—9C

## **QtA—Quitman fine sandy loam, 0 to 2 percent slopes, occasionally flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Slightly concave slopes; flats

*Shape of areas:* Elongated

*Size of areas:* 5 to 300 acres

### **Composition**

Quitman and similar soils: 80 percent  
Dissimilar soils: 20 percent

### **Typical Profile**

*Surface layer:*

0 to 5 inches—dark grayish brown fine sandy loam

*Subsurface layer:*

5 to 10 inches—pale brown fine sandy loam that has brownish yellow and brownish gray mottles

*Subsoil:*

10 to 15 inches—light yellowish brown loam that has yellowish and light brownish gray mottles

15 to 24 inches—light brownish gray sandy clay loam that has light yellowish brown and pale brown mottles

24 to 36 inches—light brownish gray sandy clay loam that has light gray and yellowish brown mottles

36 to 54 inches—light brownish gray sandy clay loam that has light gray and strong brown mottles

54 to 62 inches—light brownish gray sandy clay loam that has light gray and strong brown mottles

62 to 80 inches—light brownish gray sandy clay loam that has light gray and strong brown mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1½ to 2 feet from January through March

*Shrink-swell potential:* Low

*Flooding:* Occasional

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Depth to bedrock:* More than 80 inches

### **Minor Components**

*Dissimilar soils:*

- Poorly drained Bibb soils, which have a sandier subsoil than that of the Quitman and are on flood plains
- Poorly drained Trebloc soils, which have silt in the subsoil and are in ponded depressions
- Small areas of clayey, somewhat poorly drained soils in slight depressions
- Moderately well drained Freest soils in the slightly higher positions that aren't subject to flooding

*Similar soils:*

- Stough soils, which have a sandier subsoil than that of the Quitman
- Small areas in higher positions that are flooded less often than the Quitman soil

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Wetness, flooding, and soil fertility

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.
- Although most of the flooding occurs during the winter and early spring, crop loss may occur during the growing season.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, fescue, ryegrass, and clover

*Management concerns:* Wetness, flooding, and soil fertility

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimizes compaction and helps to maintain productivity and tilth.
- Although most of the flooding occurs during the winter, livestock and hay crops can be damaged any time of the year.
- Artificial drainage may be needed to maximize productivity.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* Equipment use and plant competition

*Management measures and considerations:*

- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.
- Skid trails and logging roads should be seeded with grass to prevent erosion during periods of flooding.
- Reforesting immediately after harvest using minimal site preparation and recommended tree species helps to control erosion and the siltation of streams during flooding.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Unsited

*Management concerns:* Flooding

*Management measures and considerations:*

- This map unit is severely limited as a site for dwellings. A site that has better suited soils should be selected.

**Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Flooding and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields. A site that has better suited soils should be selected.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Flooding

*Management measures and considerations:*

- Flooding is a severe limitation. Well-compacted fill material used as a road base may elevate roads above the flooding.
- Designing roads to safely remove surface water improves soil performance.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and flooding

*Management measures and considerations:*

- A surface or subsurface drainage system may be needed in some areas.
- This map unit is difficult to manage because of the flooding, which severely limits use during periods of inundation.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 10W

**RuA—Ruston fine sandy loam, 0 to 2 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Broad ridges

*Shape of areas:* Irregular

*Size of areas:* 5 to 65 acres

***Composition***

Ruston and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 4 inches—brown fine sandy loam

*Subsurface layer:*

4 to 8 inches—yellowish brown sandy loam

*Subsoil:*

8 to 16 inches—yellowish red sandy clay loam

16 to 23 inches—yellowish red sandy clay loam

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23 to 44 inches—yellowish red sandy clay loam that has red, light gray, and light yellowish brown mottles

44 to 62 inches—red sandy clay loam that has brownish yellow and pale brown mottles

62 to 78 inches—red sandy clay loam that has pale brown mottles

78 to 84 inches—red sandy clay loam that has brownish yellow mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Depth to bedrock:* More than 80 inches

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained Malbis soils, which have a brown subsoil that has plinthite in the lower part

*Similar soils:*

- Small areas of Lucedale soils, which have a dark surface layer that is more than 15 inches thick
- Small areas of McLaurin soils, which have less clay in the subsoil than the Ruston soil

### **Land Use**

**Dominant uses:** Cropland and pasture

**Other uses:** Forestland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* None

*Management measures and considerations:*

- Cultivated crops that produce large amounts of residue minimize crusting and packing.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* None

*Management measures and considerations:*

- Proper stocking rates, controlled grazing, weed control, and brush control help to keep the pasture and soil in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- Limitations affecting forestland management are slight.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* None

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9A

**RuB—Ruston fine sandy loam, 2 to 5 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulder slopes

## Soil Survey of Wayne County, Mississippi

*Shape of areas:* Oblong or irregular

*Size of areas:* 5 to 450 acres

### **Composition**

Ruston and similar soils: 90 percent

Dissimilar soils: 10 percent

### **Typical Profile**

*Surface layer:*

0 to 4 inches—brown fine sandy loam

*Subsurface layer:*

4 to 8 inches—yellowish brown sandy loam

*Subsoil:*

8 to 16 inches—yellowish red sandy clay loam

16 to 23 inches—yellowish red sandy clay loam

23 to 44 inches—yellowish red sandy clay loam that has red, light gray, and light yellowish brown mottles

44 to 62 inches—red sandy clay loam that has brownish yellow and pale brown mottles

62 to 78 inches—red sandy clay loam that has pale brown mottles

78 to 84 inches—red sandy clay loam that has brownish yellow mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained Malbis soils, which have a brown subsoil that has plinthite in the lower part; in positions similar to those of the Ruston soil.
- Moderately well drained Savannah soils, which have a brown subsoil that has a fragipan in the lower part; typically on summits of ridges
- Small areas of a soil that has a subsoil that is clayey in the upper part

*Similar soils:*

- Lucedale soils, which have a dark surface layer and a dark red subsoil; on planar to slight concave summits
- McLaurin soils, which have less clay in the subsoil than the Ruston soil and are on the higher summits of ridges
- Smithdale soils on the short, steeper slopes and backslope of ridges
- A few small areas that have a thin, reddish surface layer

### **Land Use**

**Dominant uses:** Cropland and pasture

**Other uses:** Forestland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes infiltration of rainfall.
- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- Limitations affecting forestland management are slight.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and log landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9A

**RuC—Ruston fine sandy loam, 5 to 8 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Shoulder slopes and toeslopes of side slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 125 acres

***Composition***

Ruston and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 4 inches—brown fine sandy loam

*Subsurface layer:*

4 to 8 inches—yellowish brown sandy loam

*Subsoil:*

8 to 16 inches—yellowish red sandy clay loam

16 to 23 inches—yellowish red sandy clay loam

23 to 44 inches—yellowish red sandy clay loam that has red, light gray, and light yellowish brown mottles

44 to 62 inches—red sandy clay loam that has brownish yellow and pale brown mottles

62 to 78 inches—red sandy clay loam that has pale brown mottles

78 to 84 inches—red sandy clay loam that has brownish yellow mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Heidel soils, which have more sand in the subsoil than the Ruston soil and are on short, steeper side slopes
- Smithdale soils on short, steeper side slopes
- Somewhat excessively drained Wadley soils, which have a surface layer that is sandy and more than 40 inches thick; on short, steeper backslopes

*Similar soils:*

- Lucedale soils, which have a surface layer that is darker than that of the Ruston soil, have a dark red subsoil, and are on footslopes
- Small areas that have a surface layer that is eroded and has more clay than that of the Ruston soil
- Small areas that have a subsoil that is thin and clayey in the upper part

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

**Cropland** (fig. 7)

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility

*Management measures and considerations:*

- Using a resource management system that includes terraces, grassed waterways, contour farming, conservation tillage, crop residue management, stripcropping, and sod-based rotations reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Cultivated crops that produce large amounts of residue minimize crusting and packing and reduce the hazard of erosion.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.



Figure 7.—A drain pipe with a vertical riser being installed in an area of Ruston fine sandy loam, 5 to 8 percent slopes.

- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* None

*Management measures and considerations:*

- Limitations affecting forestland management are slight.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Increasing the size of the absorption field improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect local roads and streets.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9A

**SaA—Savannah fine sandy loam, 0 to 2 percent slopes*****Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands and stream terraces

*Landform position:* Summits and broad ridges

*Shape of areas:* Irregular

*Size of areas:* 5 to 150 acres

***Composition***

Savannah and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 5 inches—brown fine sandy loam

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### *Subsurface layer:*

5 to 9 inches—brown fine sandy loam

### *Subsoil:*

9 to 13 inches—yellowish brown loam

13 to 22 inches—strong brown loam

22 to 29 inches—brownish yellow loam that has reddish yellow and pale brown mottles

29 to 37 inches—brownish yellow loam that has light brownish gray mottles

37 to 49 inches—brownish yellow loam that has strong brown and pale brown mottles

49 to 55 inches—brownish yellow loam that has strong brown mottles

55 to 76 inches—brownish yellow clay loam that has red and light brownish gray mottles

76 to 80 inches—light olive brown sandy clay loam that has olive gray mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Moderately deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the upper part and moderately slow in the fragipan

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1½ to 3 feet from January through April

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Other distinctive properties:* A fragipan at a depth of 16 to 35 inches

### **Minor Components**

#### *Dissimilar soils:*

- Well drained Benndale soils, which have less clay in the subsoil than the Savannah soil, do not have a fragipan, and are in short, steeper areas
- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Savannah soil; in the more sloping areas
- Well drained Malbis soils, which have plinthite in the lower part of the subsoil and are on the higher ridges
- Somewhat poorly drained Quitman soils, which do not have a fragipan and are in the lower positions

#### *Similar soils:*

- Prentiss soils, which have less clay in the subsoil than the Savannah soil
- Small areas of that have slopes of more than 2 percent

### **Land Use**

**Dominant uses:** Pasture and cropland

**Other uses:** Forestland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Wetness, root penetration, and soil fertility

*Management measures and considerations:*

- Installing and maintaining an artificial drainage system helps to overcome the wetness and improves productivity.

- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Chisel plowing and subsoiling help to break through hardpans and thereby increase root penetration and rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, clover, and ryegrass

*Management concerns:* Wetness and root penetration

*Management measures and considerations:*

- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Chisel plowing and subsoiling when seedbeds are prepared help to break through hardpans, increasing root penetration and the rate of rainfall infiltration.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, plant competition, and windthrow

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- If pines are planted, site preparation is needed to control plant competition.
- Planting seedlings close together reduces the hazard of windthrow.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Wetness and root penetration

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible to reduce the hazard of erosion and to maintain the depth to a fragipan.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- This map unit is severely limited as a site for septic tank absorption fields because of the restricted permeability in the fragipan. This limitation can be partly overcome by increasing the size of the absorption field and using suitable fill material to raise the absorption field.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Low strength and wetness

*Management measures and considerations:*

- Designing roads to safely remove surface runoff improves soil performance.
- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the wetness.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and droughtiness

*Management measures and considerations:*

- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Rooting depth is restricted because of a fragipan in the lower part of the subsoil. The fragipan results in droughtiness in late summer and early fall.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 9W

## **SaB—Savannah fine sandy loam, 2 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands and stream terraces

*Landform position:* Ridges and undulating terraces

*Shape of areas:* Irregular

*Size of areas:* 5 to 250 acres

### ***Composition***

Savannah and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 5 inches—brown fine sandy loam

*Subsurface layer:*

5 to 9 inches—brown fine sandy loam

*Subsoil:*

9 to 13 inches—yellowish brown loam

13 to 22 inches—strong brown loam

22 to 29 inches—brownish yellow loam that has reddish yellow and pale brown mottles

29 to 37 inches—brownish yellow loam that has light brownish gray mottles

37 to 49 inches—brownish yellow loam that has strong brown and pale brown mottles

49 to 55 inches—brownish yellow loam that has strong brown mottles

55 to 76 inches—brownish yellow clay loam that has red and light brownish gray mottles

76 to 80 inches—light olive brown sandy clay loam that has olive gray mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Moderately deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the upper part and moderately slow in the fragipan

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1½ to 3 feet from December through April

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Other distinctive properties:* A fragipan at a depth of 22 to 35 inches

### ***Minor Components***

*Dissimilar soils:*

- Moderately well drained, clayey Boswell soils in the slightly higher, convex positions
- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Savannah soil; in positions similar to those of the Savannah soil
- Well drained Malbis soils, which have plinthite in the subsoil and are in positions similar to those of the Savannah soil
- Somewhat poorly drained Quitman soils, which do not have a fragipan and are in the lower lying positions
- Well drained Ruston soils, which have a reddish subsoil and are in the slightly higher positions

*Similar soils:*

- Prentiss soils, which have less clay in the subsoil than the Savannah soil

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

**Management concerns:** Erodibility, wetness, and root penetration

**Management measures and considerations:**

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Chisel plowing and subsoiling help to break through hardpans and thereby increase root penetration and rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

**Pasture and hayland (fig. 8)**

**Suitability:** Well suited

**Commonly grown crops:** Bahiagrass, bermudagrass, ryegrass, and clover

**Management concerns:** Erodibility, wetness, and root penetration

**Management measures and considerations:**

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Chisel plowing and subsoiling when seedbeds are prepared help to break through hardpans, increasing root penetration and the rate of rainfall infiltration.



**Figure 8.—An area of Savannah fine sandy loam, 2 to 5 percent slopes, used as permanent pasture. Such areas are common in the county.**

- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, plant competition, and windthrow

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Wetness, erodibility, and root penetration

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- This map unit is severely limited as a site for septic tank absorption fields because of the restricted permeability in the fragipan. This limitation can be partly overcome by increasing the size of the absorption field and using suitable fill material to raise the absorption field.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Low strength and wetness

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Designing roads to safely remove surface runoff improves soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and droughtiness

*Management measures and considerations:*

- Rooting depth is restricted because of a fragipan in the lower part of the subsoil. The fragipan results in droughtiness.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2e

*Forestland ordination symbol:* 9W

**SaC—Savannah fine sandy loam, 5 to 8 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands and stream terraces

*Landform position:* Side slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 125 acres

***Composition***

Savannah and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 5 inches—brown fine sandy loam

*Subsurface layer:*

5 to 9 inches—brown fine sandy loam

*Subsoil:*

9 to 13 inches—yellowish brown loam

13 to 22 inches—strong brown loam

22 to 29 inches—brownish yellow loam that has reddish yellow and pale brown mottles

29 to 37 inches—brownish yellow loam that has light brownish gray mottles

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37 to 49 inches—brownish yellow loam that has strong brown and pale brown mottles

49 to 55 inches—brownish yellow loam that has strong brown mottles

55 to 76 inches—brownish yellow clay loam that has red and light brownish gray mottles

76 to 80 inches—light olive brown sandy clay loam that has olive gray mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Moderately deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the upper part and moderately slow in the fragipan

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1½ to 3 feet from January through March.

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

*Other distinctive properties:* A fragipan at a depth of 22 to 36 inches

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained, clayey Boswell soils on the higher side slopes
- Moderately well drained Freest soils, which do not have a fragipan but have more clay in the lower part of the subsoil than the Savannah soil; in positions similar to those of the Savannah soil
- Well drained Malbis soils, which have plinthite in the subsoil and are on the slightly higher ridges
- Poorly drained Bibb soils, which have a gray subsoil that has less clay than the subsoil of the Savannah soil; in narrow drainageways
- Well drained Ruston soils, which have a reddish subsoil and are in the slightly higher positions
- Well drained Smithdale soils, which have a reddish subsoil and are on the higher side slopes

*Similar soils:*

- Prentiss soils, which have less clay in the subsoil than the Savannah soil

### **Land Use**

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility, wetness, and root penetration

*Management measures and considerations:*

- Using a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Chisel plowing and subsoiling help to break through hardpans and thereby increase root penetration and rainfall infiltration.
- Restricting tillage to periods when the soil is not wet minimizes clodding and crusting and maximizes infiltration of water.

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- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility, wetness, and root penetration

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Chisel plowing and subsoiling when seedbeds are prepared help to break through hardpans, increasing root penetration and the rate of rainfall infiltration.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.
- Droughtiness may be a concern in mid to late summer.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, plant competition, and windthrow

*Management measures and considerations:*

- If pines are planted, site preparation is needed to control plant competition.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.
- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Root penetration and erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Constructing dwellings on raised, well-compacted fill material reduces the risk of damage from wetness.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Wetness and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields because of the restricted permeability in the fragipan. This limitation can be partly overcome by increasing the size of the absorption field.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Low strength and wetness

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Designing roads to safely remove surface runoff improves soil performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

#### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Wetness and droughtiness

*Management measures and considerations:*

- Rooting depth is restricted because of a fragipan in the lower part of the subsoil. The fragipan results in droughtiness.
- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Restricting use to periods when the soil is not saturated minimizes compaction, helps to maintain productivity, improves root penetration, and increases the rate of rainfall infiltration.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 9W

## **ShB—Shubuta fine sandy loam, 2 to 5 percent slopes**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Broad ridgetops

*Shape of areas:* Irregular

*Size of areas:* 5 to 75 acres

### ***Composition***

Shubuta and similar soils: 80 percent

Dissimilar soils: 20 percent

### ***Typical Profile***

*Surface layer:*

0 to 2 inches—brown fine sandy loam

*Subsurface layer:*

2 to 7 inches—brown fine sandy loam

*Subsoil:*

7 to 11 inches—red clay loam

11 to 18 inches—red clay loam

18 to 27 inches—red clay loam that has strong brown mottles

27 to 36 inches—red clay loam that has strong brown and reddish brown mottles

36 to 49 inches—strong brown clay loam that has red, pale brown, and light brownish gray mottles

49 to 57 inches—strong brown clay loam that has red and light brownish gray mottles

57 to 65 inches—strong brown fine sandy loam that has red mottles

*Substratum:*

65 to 80 inches—red stratified layers of sandy clay loam, sandy loam, and clay having strong brown and light gray mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderately slow

*Available water capacity:* High

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Moderate

*Flooding:* None

*Hazard of water erosion:* Moderate

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Small areas of moderately well drained soils that have a red subsoil, a fragipan, and less clay in the subsoil than the Shubuta soil
- Well drained Ruston soils, which have less clay in the subsoil than the Shubuta soil and are in the slightly higher positions
- Moderately well drained Boswell soils, which have a high shrink-swell potential and are in the slightly lower areas

*Similar soils:*

- Well drained Brantley soils on short, steeper breaks of slopes
- Small areas of soils that have more clay in the surface layer than the Shubuta soil
- Small areas of soils that have a thinner solum than the Shubuta soil

### ***Land Use***

**Dominant uses:** Pasture and forestland

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Well suited

*Commonly grown crops:* Row crops, small grains, and truck crops

*Management concerns:* Erodibility and soil fertility

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, stripcropping, contour tillage, conservation tillage, and crop residue management reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Restricting tillage to periods when the soil is dry minimizes clodding and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use and erosion

*Management measures and considerations:*

- Reforesting immediately after harvest using minimal site preparation and recommended tree species helps to control erosion and the siltation of streams.
- Reseeding disturbed areas with adapted grasses and legumes reduces the hazard of erosion and the siltation of streams.
- Restricting logging operations to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.
- Increasing the size of the absorption field improves the performance of the system.
- Installing the distribution lines during dry periods helps to control smearing and sealing of trench walls.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength

*Management measures and considerations:*

- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Droughtiness and erodibility

*Management measures and considerations:*

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Lime, fertilizer, mulch, and irrigation help to establish lawns and landscape plants.

***Interpretive Groups***

*Land capability classification:* 3e

*Forestland ordination symbol:* 8C

**SmD—Smithdale fine sandy loam, 5 to 15 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 650 acres

***Composition***

Smithdale and similar soils: 75 percent

Dissimilar soils: 25 percent

***Typical Profile***

*Surface layer:*

0 to 3 inches—dark yellowish brown fine sandy loam

*Subsurface layer:*

3 to 12 inches—yellowish brown fine sandy loam

12 to 16 inches—yellowish red fine sandy loam

*Subsoil:*

16 to 26 inches—red sandy clay loam

26 to 36 inches—red sandy clay loam

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36 to 42 inches—red loam

42 to 49 inches—red sandy loam that has yellowish red mottles

49 to 57 inches—red sandy loam that has yellowish red mottles

57 to 71 inches—red sandy loam

*Substratum:*

71 to 80 inches—red loamy sand

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Moderately well drained Savannah soils, which have a brownish subsoil that has a fragipan in the lower part; on narrow ridges
- Moderately well drained Lorman soils, which are in positions similar to those of the Smithdale soil but have more clay in the subsoil
- Small areas of Benndale soils, which have a subsoil that is browner and has less clay than the subsoil of the Smithdale soil; along drainage heads and on the lower slopes
- Small areas of a soil that has ironstone ledges that occur in narrow bands and are not continuous

*Similar soils:*

- Ruston soils, which have a deeper profile than the Smithdale soil and are on ridges
- Heidel soils, which have less sand in the subsoil than the Smithdale soil
- Small areas that have slopes of more than 15 percent

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, clover, and ryegrass

*Management concerns:* Erodibility, equipment use, and soil fertility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- Gullies tend to form on cow paths because of the rapid runoff and severe hazard of erosion.
- The slope limits equipment use in the steeper areas when hay crops are harvested.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- No significant limitations affect forestland management.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing structures to conform to natural slope helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on site.

**Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 4e

*Forestland ordination symbol:* 9A

**SmE—Smithdale fine sandy loam, 15 to 35 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Irregular to linear

*Size of areas:* 5 to 450 acres

***Composition***

Smithdale and similar soils: 85 percent

Dissimilar soils: 15 percent

***Typical Profile***

*Surface layer:*

0 to 3 inches—dark yellowish brown fine sandy loam

*Subsurface layer:*

3 to 12 inches—yellowish brown fine sandy loam

12 to 16 inches—yellowish red fine sandy loam

*Subsoil:*

16 to 26 inches—red sandy clay loam

26 to 36 inches—red sandy clay loam

36 to 42 inches—red loam

42 to 49 inches—red sandy loam that has yellowish red mottles

49 to 57 inches—red sandy loam that has yellowish red mottles

57 to 71 inches—red sandy loam

*Substratum:*

71 to 80 inches—red loamy sand

**Soil Properties and Qualities**

*Potential rooting depth:* More than 60 inches

*Drainage class:* Well drained

*Permeability:* Moderate

*Available water capacity:* Moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Very severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Good

**Minor Components**

*Dissimilar soils:*

- Irvington soils, which have a brownish subsoil with a fragipan and are on narrow ridges and toeslopes
- Small areas of a soil that has more clay than the Smithdale soil overlying compact fine sandy loam. The clayey part has a very high shrink-swell potential. The layer of compact fine sandy loam, where exposed, forms sandstone. These areas are in narrow bands and are not continuous. They are at elevations similar to those of the Smithdale soil within local areas, but because they are not continuous it is impossible to separate them in mapping.

*Similar soils:*

- Ruston soils, which have a bisequal profile and are on the broader, flatter ridges
- Heidel soils, which have more sand in the subsoil than the Smithdale soil
- Small areas that have a thick, sandy surface layer

**Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture

**Cropland**

*Suitability:* Unsited

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the slope and very severe hazard of erosion. A site that has better suited soils should be selected.
- The varying length, steepness, and direction of the slope limits the use of structural erosion-control measures.

**Pasture and hayland**

*Suitability:* Suited to pasture; poorly suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Equipment use and erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.
- The slope limits equipment use in the steeper areas.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

- Gullies tend to form on cow paths because of the rapid runoff and very severe hazard of erosion.

### **Forestland**

*Suitability:* Well suited

*Productivity class:* High for loblolly pine

*Management concerns:* Erodibility and equipment use

*Management measures and considerations:*

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Constructing roads, fire lanes, and skid trails on the contour helps to overcome the slope limitation.

### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Erodibility and slope

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing structures to conform to the contour of the natural slope or building in the less sloping areas helps to overcome the slope limitation.
- Grading or shaping land prior to construction minimizes damage from surface flow of water and reduces the hazard of erosion.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of the system.
- Seeps and springs may be encountered during excavation of trenches. These areas should not be used.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.

- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

**Lawns and landscaping**

*Suitability:* Poorly suited

*Management concerns:* Slope

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 7e

*Forestland ordination symbol:* 9R

**SoA—Stough fine sandy loam, 0 to 2 percent slopes,  
occasionally flooded**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Planar to slightly concave slopes

*Shape of areas:* Long and narrow; oblong

*Size of areas:* 5 to 200 acres

***Composition***

Stough and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 3 inches—brown fine sandy loam

3 to 7 inches—brown fine sandy loam that has yellow mottles

*Subsoil:*

7 to 13 inches—brownish yellow fine sandy loam that has strong brown and light brownish gray mottles

13 to 27 inches—yellowish brown fine sandy loam that has light gray and strong brown mottles

27 to 34 inches—brownish yellow fine sandy loam that has light gray and strong brown mottles

34 to 40 inches—brownish yellow fine sandy loam that has light gray and strong brown mottles

40 to 56 inches—light brownish gray loam that has light gray and strong brown mottles

56 to 81 inches—light brownish gray clay loam that has light gray and yellow mottles

***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Moderately slow

*Available water capacity:* Moderate

*Seasonal high water table:* Perched, at a depth of 1 to 1½ feet from January through April

*Shrink-swell potential:* Low

*Flooding:* Occasional

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Moderately low

*Tilth:* Good

### ***Minor Components***

*Dissimilar soils:*

- Poorly drained Bibb soils, which do not have fragic properties and are in narrow flood plains
- Poorly drained Trebloc soils, which have more clay in the subsoil than the Stough soil and are in the slightly lower, concave positions
- Moderately well drained Prentiss soils, which have a fragipan and are on the higher terraces

*Similar soils:*

- Quitman soils, which have more clay in the subsoil than the Stough soil

### ***Land Use***

**Dominant uses:** Forestland

**Other uses:** Pasture and recreation (fig. 9)

#### **Cropland**

*Suitability:* Suited

*Commonly grown crops:* Corn, small grains, and truck crops

*Management concerns:* Flooding, wetness, and soil fertility



**Figure 9.—A fishing pond in an area of Stough fine sandy loam, 0 to 2 percent slopes, occasionally flooded. Recreational development can be a good use of this soil.**

*Management measures and considerations:*

- The potential for flooding during the growing season makes this map unit difficult to manage for cropland. Although most flooding occurs during the winter and early spring, crop loss may occur during the growing season.
- Delaying spring planting minimizes the clodding and rutting that occurs if equipment is used when the soil is wet.
- Maintaining drainageways and ditches helps to remove excess water.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, fescue, and ryegrass

*Management concerns:* Wetness, flooding, and soil fertility

*Management measures and considerations:*

- Using rotational grazing and implementing a well-planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.
- Although most of the flooding occurs during the winter, pasture and hay crops can be damaged any time of the year.
- Artificial drainage may be needed to maximize productivity.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* Very high for loblolly pine

*Management concerns:* Equipment use, windthrow, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes the rutting and compaction that occurs when the soil is saturated.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.
- Harvesting timber during the summer months reduces the risk of damage from the flooding.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—fair

*Management concerns:* Flooding

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Unsited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for dwellings because of the flooding. A site that has better suited soils should be selected.

**Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Flooding, wetness, and restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields because of the flooding, restricted permeability, and wetness.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Flooding and wetness

*Management measures and considerations:*

- Well-compacted fill material used as a road base may elevate roads above the flooding and helps to overcome the wetness.

**Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Droughtiness, flooding, and wetness

*Management measures and considerations:*

- A surface or subsurface drainage system may be needed in some areas.
- This map unit is difficult to manage because of the flooding, which severely limits use during periods of inundation.
- Applying supplemental irrigation in summer and fall and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 2w

*Forestland ordination symbol:* 9W

**StC2—Sumter-Maytag complex, 3 to 8 percent slopes,  
eroded**

***Setting***

*Landscape:* Blackland Prairie

*Landform:* Upland ridges

*Landform position:* Convex ridge crests; side slopes

*Shape of areas:* Irregular

*Size of areas:* 10 to 150 acres

***Composition***

Sumter and similar soils: 50 percent

Maytag and similar soils: 40 percent

Dissimilar soils: 10 percent

***Typical Profiles***

**Sumter**

*Surface layer:*

0 to 5 inches—dark grayish brown silty clay loam

*Subsoil:*

5 to 10 inches—light yellowish brown silty clay

## Soil Survey of Wayne County, Mississippi

10 to 17 inches—pale yellow silty clay that has brownish yellow and yellowish brown mottles

17 to 27 inches—light gray clay that has yellowish brown and brownish yellow mottles

### *Bedrock:*

27 to 80 inches—light brownish gray soft limestone (chalk)

### **Maytag**

#### *Surface layer:*

0 to 5 inches—dark grayish brown silty clay loam

#### *Subsoil:*

5 to 11 inches—light yellowish brown silty clay that has brownish yellow mottles

11 to 30 inches—light yellowish brown and light gray silty clay that has brownish yellow mottles

30 to 42 inches—light yellowish brown and light gray silty clay that has yellowish brown mottles

42 to 52 inches—light yellowish brown and light gray silty clay loam that has olive yellow mottles

#### *Substratum:*

52 to 70 inches—light gray silty clay that has light yellowish brown mottles

70 to 80 inches—light yellowish brown silty clay that has olive yellow mottles

### **Soil Properties and Qualities**

*Depth class:* Sumter—moderately deep; Maytag—very deep

*Drainage class:* Sumter—well drained; Maytag—moderately well drained

*Permeability:* Slow

*Available water capacity:* Sumter—low; Maytag—moderate

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* High

*Flooding:* None

*Content of organic matter in the surface layer:* Moderate

*Natural fertility:* High

*Depth to bedrock:* Sumter—20 to 40 inches to soft bedrock; Maytag—more than 60 inches

*Other distinctive properties:* Alkaline reaction and accumulations of calcium carbonate throughout the profile

### **Minor Components**

#### *Dissimilar soils:*

- Scattered areas of soils that are shallow over soft bedrock

#### *Similar soils:*

- Scattered areas of alkaline soils that have bedrock at a depth of 40 to 60 inches
- Scattered areas of soils that are similar to the Sumter soil but that have less clay and more glauconitic sand in the subsoil

### **Land Use**

**Dominant uses:** Pasture and hayland

**Other uses:** Forestland and homesites

### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Soybeans and small grains

*Management concerns:* Erodibility and tilth

*Management measures and considerations:*

- Contour farming, conservation tillage, crop residue management, stripcropping, and sod-based rotations reduce the hazard of further erosion, stabilize the soil, help to control surface runoff, and maximize infiltration of water.
- Incorporating crop residue into the soil or leaving residue on the surface and tilling during dry periods help to minimize clodding and crusting and maximize infiltration of water.

**Pasture and hayland** (fig. 10)

*Suitability:* Suited

*Commonly grown crops:* Tall fescue, dallisgrass, Johnsongrass, and bahiagrass

*Management concerns:* Sumter—erodibility and droughtiness; Maytag—erodibility

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Special care should be taken to prevent further erosion when pastures are renovated or seedbeds are established.
- Because of the restricted rooting depth in the Sumter soil and the low available water capacity, this map unit is difficult to manage in an economical manner for pasture and hay.
- Using rotational grazing and implementing a well planned schedule of clipping and harvesting help to maintain the pasture and increase productivity.

**Forestland**

*Suitability:* Suited to eastern redcedar; unsuited to loblolly pine

*Productivity class:* Moderate for eastern redcedar

*Management concerns:* Erodibility, equipment use, windthrow, and plant competition

*Management measures and considerations:*

- This map unit is unsuited to pine production because the soils are too alkaline.
- Planting appropriate species as recommended by a forester maximizes productivity and helps to ensure planting success.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.



**Figure 10.—Improved pasture in an area of Sumter-Maytag complex, 3 to 8 percent slopes, eroded. This is a good conservation practice for this area.**

- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Unsurfaced roads may be impassable during wet periods because of the high content of clay in these soils.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—very poor

*Management concerns:* Equipment use and erodibility

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.

**Septic tank absorption fields**

*Suitability:* Unsited

*Management concerns:* Sumter—depth to rock and restricted permeability; Maytag—restricted permeability

*Management measures and considerations:*

- This map unit is severely limited as a site for septic tank absorption fields.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Sumter—shrink-swell potential and low strength; Maytag—shrink-swell potential, low strength, and unstable excavation walls

*Management measures and considerations:*

- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Incorporating sand and gravel into the roadbed and compacting the roadbed help to overcome the low strength of the natural soil material.
- Designing roads to incorporate structures that remove excess water improves the stability of excavation walls, which are subject to slumping.

***Interpretive Groups***

*Land capability classification:* 4e

*Forestland ordination symbol:* 3C for eastern redcedar

**SuB—Susquehanna fine sandy loam, 2 to 5 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

## Soil Survey of Wayne County, Mississippi

*Landform position:* Ridges  
*Shape of areas:* Irregular  
*Size of areas:* 5 to 125 acres

### **Composition**

Susquehanna and similar soils: 80 percent  
Dissimilar soils: 20 percent

### **Typical Profile**

*Surface layer:*  
0 to 3 inches—brown fine sandy loam

*Subsurface layer:*  
3 to 9 inches—brown fine sandy loam

*Subsoil:*  
9 to 15 inches—red clay that has grayish brown and reddish brown mottles  
15 to 21 inches—light brownish gray clay that has brown and red mottles  
21 to 30 inches—light brownish gray clay that has red and yellowish red mottles  
30 to 50 inches—light brownish gray clay that has strong brown and yellowish red mottles  
50 to 57 inches—light brownish gray clay that has red and light gray mottles  
57 to 70 inches—pale olive clay that has red and brownish gray mottles

*Substratum:*  
70 to 90 inches—light olive gray clay that has pale olive mottles

### **Soil Properties and Qualities**

*Potential rooting depth:* Very deep  
*Drainage class:* Somewhat poorly drained  
*Permeability:* Very slow  
*Available water capacity:* High  
*Seasonal high water table:* None within a depth of 6 feet  
*Shrink-swell potential:* High  
*Flooding:* None  
*Hazard of water erosion:* Moderate  
*Content of organic matter in the surface layer:* Low  
*Tilth:* Good

### **Minor Components**

*Dissimilar soils:*

- Loamy Benndale and McLaurin soils, which are well drained and are on narrow ridges
- Loamy Freest soils, which are moderately well drained and are on the slightly higher ridges

*Similar soils:*

- Lorman soils, which are moderately well drained and are on narrow side slopes

### **Land Use**

**Dominant uses:** Pasture and forestland

#### **Cropland**

*Suitability:* Suited  
*Commonly grown crops:* Row crops, small grains, and truck crops  
*Management concerns:* Erodibility, wetness, and soil fertility

*Management measures and considerations:*

- Use a resource management system that includes contour farming, conservation tillage, crop residue management, terraces, grassed waterways, stripcropping, and no-till cropping reduces the hazard of erosion, helps to control surface runoff, and maximizes water infiltration.
- Restricting tillage to periods when the soil is not wet minimizes rutting and crusting.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and improves productivity.

**Pasture and hayland**

*Suitability:* Well suited

*Commonly grown crops:* Bahiagrass, bermudagrass, ryegrass, and clover

*Management concerns:* Erodibility and wetness

*Management measures and considerations:*

- Preparing seedbeds on the contour or across slope reduces the hazard of erosion.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimizes soil compaction and helps to maintain productivity and tilth.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland**

*Suitability:* Well suited

*Productivity class:* Moderately high for loblolly pine

*Management concerns:* Equipment use and windthrow

*Management measures and considerations:*

- Restricting logging to periods when the soil is not saturated minimizes rutting and the damage caused to tree roots by compaction.
- Planting seedlings on raised beds along the contour reduces the hazard of windthrow.
- Establishing a permanent plant cover on roads and landings after the completion of logging helps to control erosion and the siltation of streams.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—very poor

*Management concerns:* Equipment use and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Poorly suited

*Management concerns:* Shrink-swell potential and wetness

*Management measures and considerations:*

- Reinforcing foundations and footings or backfilling with coarse-textured material helps to prevent the damage caused by shrinking and swelling.
- Care should be taken to prevent erosion during construction, and vegetation should be established as soon as possible.

**Septic tank absorption fields**

*Suitability:* Poorly suited

*Management concerns:* Restricted permeability

*Management measures and considerations:*

- Accessing the outlets of the public sewage system eliminates the need to use this severely limited soil as a site for a septic tank system.
- Using suitable fill material to raise the absorption field a sufficient distance above the seasonal high water table improves the performance of the system.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

#### **Local roads and streets**

*Suitability:* Poorly suited

*Management concerns:* Low strength; shrink-swell potential

*Management measures and considerations:*

- Incorporating sand and gravel into the roadbed, compacting the roadbed, and designing roads to conform to the natural slope help to overcome the low strength of the natural soil material.
- Removing as much of the clay that has a high shrink-swell potential as possible and increasing the thickness of the base aggregate improve soil performance.
- Installing geotextile fabric between the base aggregate and the final surface of the road improves performance.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

#### **Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* Wetness

*Management measures and considerations:*

- Surface field ditches remove surface water and help to overcome the wetness.
- Restricted use during wet periods minimizes compaction.
- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 4e

*Forestland ordination symbol:* 8C

## **TbA—Trebloc silt loam, ponded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Flat to slightly concave slopes

*Shape of areas:* Long and narrow

*Size of areas:* 5 to 500 acres

### ***Composition***

Trebloc and similar soils: 85 percent

Dissimilar soils: 15 percent

### ***Typical Profile***

*Surface layer:*

0 to 4 inches—very dark grayish brown silt loam

## Soil Survey of Wayne County, Mississippi

### *Subsurface layer:*

4 to 9 inches—gray silt loam

9 to 15 inches—grayish brown silt loam

### *Subsoil:*

15 to 31 inches—light brownish gray silty clay loam that has yellowish brown mottles

31 to 39 inches—light brownish gray silty clay loam that has strong brown mottles

39 to 52 inches—light brownish gray silty clay that has strong brown and yellowish red mottles

52 to 56 inches—light brownish gray silty clay that has strong brown and red mottles

56 to 65 inches—light gray silty clay

### *Substratum:*

65 to 81 inches—light gray sandy loam

81 to 83 inches—white sand

## **Soil Properties and Qualities**

*Potential rooting depth:* More than 60 inches

*Drainage class:* Poorly drained

*Permeability:* Slow

*Available water capacity:* High

*Seasonal high water table:* Apparent, from 2 feet above the surface to a depth of 1 foot from November through June

*Shrink-swell potential:* Moderate

*Depth of ponding:* 0.25 to 2.0 feet

*Flooding:* Frequent for very brief periods

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Moderate

*Tilth:* Poor

## **Minor Components**

### *Dissimilar soils:*

- Somewhat poorly drained Stough and Quitman soils in the slightly higher positions

### *Similar soils:*

- Small areas of very poorly drained soils that have a mucky surface layer

## **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture

### **Cropland**

*Suitability:* Unsited

*Commonly grown crops:* None

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the seasonal high water table, frequent flooding, and ponding. A site that has better suited soils should be selected.

### **Pasture and hayland**

*Suitability:* Poorly suited

*Commonly grown crops:* Bahiagrass and common bermudagrass

*Management concerns:* Flooding, wetness, and ponding

*Management measures and considerations:*

- Installing and maintaining a surface drainage system increases productivity.

- Although most of the flooding occurs during winter and early spring, livestock and hay crops can be damaged any time of the year.
- Preventing overgrazing and restricting grazing to periods when the soil is not too wet minimize compaction and help to maintain productivity and tilth.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Poorly suited

*Productivity class:* Moderate for bald cypress, water tupelo, and tupelo gum

*Management concerns:* Equipment use, seedling survival, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes the rutting and compaction that occurs when the soil is saturated.
- Harvesting timber during summer and fall reduces the risk of damage from the flooding.
- Planting seedlings on raised beds helps to establish the seedlings and increases the seedling survival rate.

#### **Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—poor; forestland wildlife—poor; wetland wildlife—good

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

#### **Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

### ***Interpretive Groups***

*Land capability classification:* 5w

*Forestland ordination symbol:* 10W for bald cypress

## **UaB—Urbo-Una complex, gently undulating, frequently flooded**

### ***Setting***

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Urbo—slightly convex low ridges in backswamps; Una—flat and concave slopes in backswamps, swales, and sloughs

*Slope:* 0 to 5 percent

*Shape of areas:* Long and narrow

*Size of areas:* 15 to 500 acres

### ***Composition***

Urbo and similar soils: 50 percent  
Una and similar soils: 40 percent  
Dissimilar soils: 10 percent

### ***Typical Profiles***

#### **Urbo**

##### *Surface layer:*

0 to 1 inch—brown silty clay loam

##### *Subsurface layer:*

1 to 8 inches—dark yellowish brown silty clay loam that has light brownish gray mottles

##### *Subsoil:*

8 to 16 inches—yellowish brown and light brownish gray clay

16 to 23 inches—light brownish gray and yellowish brown clay

23 to 28 inches—light brownish gray clay that has yellowish brown mottles

28 to 73 inches—light brownish gray clay that has red mottles

73 to 84 inches—light brownish gray silty clay that has red and strong brown mottles

#### **Una**

##### *Surface layer:*

0 to 2 inches—dark grayish brown silty clay loam

##### *Subsoil:*

2 to 7 inches—gray silty clay loam that has yellowish red and reddish brown mottles

7 to 13 inches—gray clay that has yellowish red and reddish brown mottles

13 to 20 inches—gray clay that has yellowish mottles in shades of brown and red

20 to 38 inches—light brownish gray clay that has yellowish brown and strong brown mottles

38 to 45 inches—gray clay that has strong brown and yellowish red mottles

45 to 51 inches—gray clay that has yellowish red mottles

51 to 68 inches—gray clay that has red mottles

68 to 77 inches—light brownish gray clay loam that has strong brown and yellowish red mottles

##### *Substratum:*

77 to 81 inches—gray clay loam that has yellowish red mottles

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Urbo—somewhat poorly drained; Una—poorly drained

*Permeability:* Very slow

*Available water capacity:* High

*Seasonal high water table:* Urbo—perched, at a depth of 1 to 2 feet from December through April; Una—perched, at a depth of 1/2 to 1 foot from November through April

*Shrink-swell potential:* High

*Flooding:* Frequent

*Hazard of water erosion:* Slight

*Content of organic matter in the surface layer:* Urbo—moderate; Una—high

*Tilth:* Fair

*Other distinctive properties:* Una—ponded from December through April

### ***Minor Components***

*Dissimilar soils:*

- Moderately well drained luka soils on natural levees

## Soil Survey of Wayne County, Mississippi

- Well drained Jena soils on natural levees
- Poorly drained Bibb soils in sloughs and drainageways

### *Similar soils:*

- Small areas of moderately well drained, clayey soils on the higher parts of low ridges

## **Land Use**

**Dominant uses:** Forestland and wildlife habitat

**Other uses:** Recreational development

### **Cropland**

*Suitability:* Unsited

*Management concerns:* Flooding, wetness, and ponding

*Management measures and considerations:*

- This map unit is severely limited for crop production because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

### **Pasture and hayland**

*Suitability:* Urbo—suited to pasture and poorly suited to hayland; Una—poorly suited to pasture and unsited to hayland

*Commonly grown crops:* Bahiagrass, common bermudagrass, dallisgrass, and white clover

*Management concerns:* Equipment use, flooding, wetness, and ponding

*Management measures and considerations:*

- Although most of the flooding occurs during the winter and spring, livestock and hay can be damaged any time of the year.
- Using equipment only when the soil has the proper moisture content helps to prevent the rutting and compaction of the surface layer caused by the high content of clay.
- Proper stocking rates and restricted grazing during wet periods help to prevent compaction and keep the pasture in good condition.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

### **Forestland**

*Suitability:* Suited to loblolly pine and hardwoods

*Productivity class:* Urbo—very high for loblolly pine, sweetgum, and cherrybark oak; Una—high for sweetgum and cherrybark oak

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Restricting the use of standard wheeled and tracked equipment to dry periods minimizes the rutting and compaction that occurs when the soils are saturated.
- Harvesting timber during summer and fall reduces the risk of damage from the flooding.
- Bedding the Una soil prior to planting helps to establish seedlings and increases the seedling survival rate.
- Site preparation practices, such as chopping and the application of herbicides, help to control plant competition.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.

### **Wildlife habitat**

*Potential of the Urbo soil to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—fair

*Potential of the Una soil to support habitat for:* Openland wildlife—very poor; forestland wildlife—very poor; wetland wildlife—good

*Management concerns:* Equipment use, flooding, wetness, and ponding

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants.
- Wetland wildlife habitat can be improved by constructing shallow ponds that provide open water areas for waterfowl and furbearers.

**Urban development**

*Suitability:* Unsited

*Management concerns:* Flooding, ponding, and wetness

*Management measures and considerations:*

- This map unit is severely limited as a site for urban development because of the flooding, ponding, and wetness. A site that has better suited soils should be selected.

***Interpretive Groups***

*Land capability classification:* 5w

*Forestland ordination symbol:* 9W

**WaB—Wadley loamy fine sand, 0 to 5 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Convex slopes

*Shape of areas:* Irregular

*Size of areas:* 5 to 50 acres

***Composition***

Wadley and similar soils: 90 percent

Dissimilar soils: 10 percent

***Typical Profile***

*Surface layer:*

0 to 6 inches—brown loamy fine sand

*Subsurface layer:*

6 to 24 inches—very pale brown fine sand

24 to 37 inches—dark yellowish brown fine sand

37 to 57 inches—brownish yellow fine sand that has very pale brown streaks

57 to 67 inches—yellow fine sand that has brownish yellow and pale brown streaks

67 to 73 inches—yellow fine sand that has brownish yellow, very pale brown, and strong brown streaks and thin layers

*Subsoil:*

73 to 83 inches—yellowish brown sandy loam

***Soil Properties and Qualities***

*Depth class:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid in the surface and subsurface layers and moderate in the subsoil

*Available water capacity:* Low

*Seasonal high water table:* None within a depth of 6 feet

## Soil Survey of Wayne County, Mississippi

*Shrink-swell potential:* Low

*Flooding:* None

*Content of organic matter in the surface layer:* Low

*Natural fertility:* Low

*Depth to bedrock:* More than 60 inches

### **Minor Components**

*Dissimilar soils:*

- Smithdale and clayey Luverne soils on the lower parts of slopes
- Wadley soils that have a slope of more than 5 percent

*Similar soils:*

- Scattered areas of sandy soils that do not have a loamy subsoil within a depth of 80 inches
- Scattered areas of soils that have a loamy subsoil within a depth of 20 to 40 inches

### **Land Use**

**Dominant uses:** Forestland

**Other uses:** Pasture and hayland

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Truck crops and watermelons

*Management concerns:* Droughtiness, nutrient leaching, and fertility

*Management measures and considerations:*

- Conservation tillage, winter cover crops, crop residue management, and crop rotations that include grasses and legumes increase available water capacity and improve fertility.
- Applying supplemental irrigation and planting crop varieties that are adapted to droughty conditions improve production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Suited

*Commonly grown crops:* Coastal bermudagrass and bahiagrass

*Management concerns:* Droughtiness, nutrient leaching, and fertility

*Management measures and considerations:*

- Applying supplemental irrigation and seeding or planting varieties that are adapted to droughty conditions increases production.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- During the establishment, maintenance, or renovation of pasture and hayland, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Forestland**

*Suitability:* Suited

*Productivity class:* High for loblolly pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Planting high-quality seedlings in a shallow furrow increases the seedling survival rate.
- Using improved varieties of loblolly pine increases production.
- Restricting logging to periods when the soil is not wet minimizes rutting and the damage caused to roots by compaction.

**Wildlife habitat**

*Potential to support habitat for:* Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

*Management concerns:* Droughtiness and equipment use

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting appropriate vegetation, maintaining the existing plant cover, or promoting the natural establishment of desirable plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

**Dwellings**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect dwellings.

**Septic tank absorption fields**

*Suitability:* Well suited

*Management concerns:* No significant limitations affect septic tank absorption fields.

*Management measures and considerations:*

- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

**Local roads and streets**

*Suitability:* Suited

*Management concerns:* Unstable excavation walls

*Management measures and considerations:*

- Constructing roads on the contour minimizes cutting and filling and helps to overcome the limitations caused by unstable excavation walls.

**Lawns and landscaping**

*Suitability:* Well suited

*Management concerns:* None

*Management measures and considerations:*

- No significant limitations affect lawns and landscaping.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

***Interpretive Groups***

*Land capability classification:* 3s

*Forestland ordination symbol:* 8S for loblolly pine

**WsD—Wadley-Boykin-Smithdale complex, 5 to 15 percent slopes**

***Setting***

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Shape of areas:* Irregular or oblong

*Size of areas:* 5 to 250 acres

### ***Composition***

Wadley and similar soils: 55 percent  
Boykin and similar soils: 20 percent  
Smithdale and similar soils: 20 percent  
Dissimilar soils: 5 percent

### ***Typical Profiles***

#### **Wadley**

##### *Surface layer:*

0 to 6 inches—brown fine sand

##### *Subsurface layer:*

6 to 24 inches—very pale brown fine sand

24 to 37 inches—dark yellowish brown fine sand

37 to 57 inches—brownish yellow fine sand that has very pale brown streaks

57 to 67 inches—yellow fine sand that has brownish yellow and pale brown streaks

67 to 73 inches—yellow fine sand that has brownish yellow, very pale brown, and strong brown streaks and thin layers

##### *Subsoil:*

73 to 83 inches—yellowish brown sandy loam

#### **Boykin**

##### *Surface layer:*

0 to 3 inches—brown loamy fine sand

3 to 8 inches—yellowish brown loamy fine sand

##### *Subsurface layer:*

8 to 25 inches—light yellowish brown fine sand

##### *Subsoil:*

25 to 38 inches—brownish yellow sandy loam

38 to 50 inches—reddish yellow sandy clay loam that has reddish brown mottles

50 to 61 inches—reddish yellow sandy clay loam that has pale brown and red mottles

61 to 78 inches—pale brown clay loam that has reddish brown and light gray mottles

#### **Smithdale**

##### *Surface layer:*

0 to 3 inches—dark yellowish brown fine sandy loam

##### *Subsurface layer:*

3 to 12 inches—yellowish brown fine sandy loam

12 to 16 inches—yellowish red fine sandy loam

##### *Subsoil:*

16 to 26 inches—red sandy clay loam

26 to 36 inches—red sandy clay loam

36 to 42 inches—red loam

42 to 49 inches—red sandy loam that has yellowish red mottles

49 to 57 inches—red sandy loam that has yellowish red mottles

57 to 71 inches—red sandy loam

##### *Substratum:*

71 to 80 inches—red loamy sand

### ***Soil Properties and Qualities***

*Potential rooting depth:* Very deep

*Drainage class:* Wadley—somewhat excessively drained; Boykin and Smithdale—well drained

## Soil Survey of Wayne County, Mississippi

*Permeability:* Wadley and Boykin—rapid in the surface and subsurface layers and moderate in the subsoil; Smithdale—moderate

*Available water capacity:* Low

*Seasonal high water table:* None within a depth of 6 feet

*Shrink-swell potential:* Low

*Flooding:* None

*Hazard of water erosion:* Severe

*Content of organic matter in the surface layer:* Low

*Tilth:* Poor

### **Minor Components**

*Dissimilar soils:*

- Poorly drained Bibb soils along drainageways
- Well drained Benndale soils, which have a surface layer that is less than 20 inches thick
- Well drained Heidel soils, which have a loamy, red subsoil at a depth of less than 20 inches
- Moderately well drained Irvington soils, which have a brownish subsoil with a fragipan in the lower part; on narrow ridges
- Very poorly drained soils that have organic surfaces and are on narrow drainageways
- Well drained Smithdale soils, which have a loamy red subsoil at a depth of less than 20 inches

*Similar soils:*

- Alaga soils, which do not have a subsoil
- Small areas of soils that have a sandy subsoil

### **Land Use**

**Dominant uses:** Forestland and pasture

**Other uses:** Cropland

#### **Cropland**

*Suitability:* Poorly suited

*Commonly grown crops:* Small grains and truck crops

*Management concerns:* Erodibility, equipment use, droughtiness, and nutrient leaching

*Management measures and considerations:*

- Using a resource management system that includes terraces and diversions, grassed waterways, conservation tillage, stripcropping, contour farming, crop residue management, and soil conserving crops in rotation reduces the hazard of erosion, helps to control surface runoff, and maximizes rainfall infiltration.
- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- Using drought-tolerant plants increases productivity.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

#### **Pasture and hayland**

*Suitability:* Well suited to pasture; suited to hayland

*Commonly grown crops:* Bahiagrass, bermudagrass, and ryegrass

*Management concerns:* Erodibility, equipment use, droughtiness, and nutrient leaching

*Management measures and considerations:*

- Preparing seedbeds on the contour or across the slope reduces the hazard of erosion and increases the rate of germination.
- Fencing livestock away from creeks and streams helps to control erosion of the streambanks and sedimentation of the creeks and streams.

- Using equipment that has low-pressure tires increases traction and minimizes the rutting caused by the high content of sand in the soil.
- The slope limits equipment use in the steeper areas when hay crops are harvested.
- Using split applications increases the effectiveness of fertilizer and herbicides.
- When pasture and hayland are established, maintained, or renovated, the application of lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes productivity.

**Forestland** (fig. 11)

*Suitability:* Well suited

*Productivity class:* Wadley—very high for slash pine and high for loblolly and longleaf pine; Boykin and Smithdale—high for loblolly pine

*Management concerns:* Equipment use, seedling mortality, and plant competition

*Management measures and considerations:*

- Using tracked or low-pressure ground equipment minimizes rutting and the damage caused to tree roots by compaction during harvesting.
- Planting rates can be increased to compensate for the high rate of seedling mortality.
- Leaving a buffer zone of trees and shrubs adjacent to streams helps to control siltation and provides shade for the surface of the water, thereby improving aquatic habitat.
- Installing broad-based dips, water bars, and culverts helps to stabilize logging roads, skid trails, and landings.
- Reseeding disturbed areas with adapted grasses and legumes helps to control erosion and the siltation of streams.
- Site preparation practices, such as chopping, prescribed burning, and applying herbicides, help to control plant competition.



**Figure 11.**—An area of Wadley-Boykin-Smithdale complex, 5 to 15 percent slopes. If erosion-control measures are implemented, areas of this map unit are well suited to timber harvesting and reseedling.

### **Wildlife habitat**

*Potential of the Wadley soil to support habitat for:* Openland wildlife—fair; forestland wildlife—poor; wetland wildlife—very poor

*Potential of the Boykin soil to support habitat for:* Openland wildlife—fair; forestland wildlife—fair; wetland wildlife—very poor

*Potential of the Smithdale soil to support habitat for:* Openland wildlife—good; forestland wildlife—good; wetland wildlife—poor

*Management concerns:* Erodibility, equipment use, and droughtiness

*Management measures and considerations:*

- Openland wildlife habitat can be improved by leaving undisturbed areas of vegetation around cropland and pasture. These areas provide wildlife with food and a place to rest.
- Forestland wildlife habitat can be improved by planting or encouraging the growth of oak trees and suitable understory plants. Prescribed burning every 3 years, rotated among several small tracts of land, can increase the amount of palatable browse for deer and the number of seed-producing plants for quail and turkey.

### **Dwellings**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing structures to conform to natural slope helps to overcome the slope limitation.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

### **Septic tank absorption fields**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Installing the distribution lines on the contour improves the performance of the system.
- The soil readily absorbs, but does not adequately filter, effluent. Measures that improve the filtering capacity should be considered.
- The local Health Department can be contacted for additional guidance regarding sanitary facilities.

### **Local roads and streets**

*Suitability:* Suited

*Management concerns:* Slope

*Management measures and considerations:*

- Designing roads to conform to the contour and providing adequate water-control structures, such as culverts, help to maintain the stability of the road.
- Vegetating cut-and-fill slopes as soon as possible after construction helps to stabilize the soil and reduces the hazard of erosion.

### **Lawns and landscaping**

*Suitability:* Suited

*Management concerns:* Slope and droughtiness

*Management measures and considerations:*

- Topsoil should be stockpiled from an area before it is otherwise disturbed and then replaced before the area is landscaped.
- Designing plantings to conform to the natural contour reduces the hazard of erosion and increases the rate of water infiltration.
- Vegetating disturbed areas and using erosion-control structures, such as sediment fences and catch basins, help to keep soil on the site.

## Soil Survey of Wayne County, Mississippi

- Applying supplemental irrigation and planting or seeding varieties that are adapted to droughty conditions increases the survival rate of grasses and landscaping plants.
- Applying lime and fertilizer on the basis of soil testing increases the availability of plant nutrients and maximizes growth of lawns and landscaping plants.

### ***Interpretive Groups***

*Land capability classification:* 6s

*Forestland ordination symbol:* Wadley—11S; Boykin—9S; Smithdale—9A

# Prime Farmland and Other Important Farmland

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Table 5 lists the map units in the survey area that are considered prime farmland and farmland of statewide importance. This list does not constitute a recommendation for a particular land use.

*Prime farmland* is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 4. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Detailed Soil Map Units."

In some areas, land that does not meet the criteria for prime farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.



# **Use and Management of the Soils**

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This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as rangeland and forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of sand and gravel, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

## **Crops and Pasture**

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading "Detailed Soil Map Units." Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

The average yields per acre shown in table 6 are those that can be expected of the principal crops under a high level of management. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the tables.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the yields tables are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

## Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961).

*Capability classes*, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

*Capability subclasses* are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2*e*. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

*Capability units* are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2*e*-4 and 3*e*-6. These units are not given in this soil survey.

The capability classification of the soils in this survey area is given in the section "Detailed Soil Map Units" and in the yields table.

## Forestland Management and Productivity

Alan Holditch, forester, Natural Resources Conservation Service, helped to prepare this section.

Wayne County was originally part of a great pine forest that stretched across the southern part of Mississippi and several other southern states. A map made in 1881 of the Mississippi forest shows that the dominant species was longleaf pine (*Pinus palustris*). Both pines and hardwoods grew on the uplands and terraces, and hardwoods grew in the bottom lands. Early pioneers were drawn by the beauty and parklike appearance of the longleaf forest.

The virgin forests in Wayne County provided material for logging and sawmilling operations. Timber accounted for the growth of towns and the development of railroad facilities. After the Civil War, timber was the principal source of income. Second-growth stands provided material for the lumber industry during World War II and the post war period.

The future use of the forestlands in Wayne County will be determined to a great extent by the ownership objectives of the private land owners and the management of the public forestlands.

If the timber resources in Wayne County are to make a substantial contribution towards satisfying the increased demand for southern timber supplies, then timber production must become perceived by the owners as a compatible objective for the forestlands.

Approximately 446,300 acres, or about 86 percent of the total land area in Wayne County, is commercial forestland. Commercial forestland is defined as forest that is producing or is capable of producing crops of industrial wood and that has not been withdrawn from timber use. The commercial forest has various types of owners. In Wayne County, 214,100 acres is owned by private individuals and farmers, 142,700 acres is owned by the forest industry and corporations, and 89,600 acres is public lands, both State and Federal.

The commercial forestland may be subdivided into forest types that require various management and treatment practices. Forest types are based on species composition, site quality, or age. In this survey, forest types are stands of trees that are composed of the same species and grow under the same ecological and biological conditions. The forest types are named for the tree species that predominate.

The two major softwood forest types in the county are the loblolly-shortleaf pine type (171,600 acres) and the longleaf-slash pine type (41,800 acres). Other forest types include the oak-pine type (101,200 acres), the oak-hickory type (82,500 acres), and the oak-gum-cypress type (49,100 acres). In the uplands, the main species are longleaf pine (*Pinus palustris*), slash pine (*Pinus elliottii*), shortleaf pine (*Pinus echinata*), loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), black cherry (*Prunus serotina*), common persimmon (*Diospyros virginiana*), southern magnolia (*Magnolia grandiflora*), sweetbay (*Magnolia virginiana*), sassafras (*Sassafras albidum*), red maple (*Acer rubrum*), yellow poplar (*Liriodendron tulipifera*), cherrybark oak (*Quercus pagodaefolia*), Shumard's oak (*Quercus shumardii*), white oak (*Quercus alba*), blackjack oak (*Quercus marilandica*), post oak (*Quercus stellata*), mockernut hickory (*Carya tomentosa*), and pignut hickory (*Carya glabra*).

In the bottom lands, the main species are green ash (*Fraxinus pennsylvanica*), bald cypress (*Taxodium distichum*), water tupelo (*Nyssa aquatica*), spruce pine (*Pinus glabra*), sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), swamp chestnut oak (*Quercus michauxii*), laurel oak (*Quercus laurifolia*), and red maple (*Acer rubrum*).

Climate and soils are the most important environmental factors that influence the growth and frequency of occurrence of trees. Soil is the medium in which trees are anchored, and it supplies the trees with nutrients and moisture. Soil characteristics, such as chemical composition, texture, structure, depth, and position, affect the growth of a tree to the extent to which they affect the supply of moisture and nutrients.

Slope position strongly influences species composition in a forest. Moisture loving species, such as sweetgum and yellow poplar, thrive on moderately moist, well drained, loamy soils on the lower to middle parts of slopes and in areas adjoining streams. Such species as oak, hickory, and pine grow well on the middle parts of slopes and on ridges.

Forestland management practices, such as timber harvesting and site preparation, have great potential for affecting soil productivity and water quality. Good management practices maintain or improve soil productivity and water quality. Careless application of these practices can cause erosion, deplete nutrients, and result in soil compaction. Site-specific management practices that account for topography, time, natural site fertility, and the hazard of erosion help to prevent damage to soil and water resources.

This soil survey can be used by forestland managers to plan ways to increase the productivity of forestland. Some soils respond better to applications of fertilizer than others, and some are more susceptible to landslides and erosion after roads are built and timber is harvested. Some soils require special reforestation efforts. In the section "Detailed Soil Map Units," the description of each map unit in the survey area suitable for timber includes information about productivity, limitations, and management concerns for producing timber.

Table 7 summarizes the forestry information and rates the soils for a number of factors to be considered in management. *Slight*, *moderate*, and *severe* are used to indicate the degree of the major soil limitations to be considered in forest management.

The table lists the *ordination symbol* for each soil. The first part of the ordination symbol, a number, indicates the potential productivity of a soil for the indicator species in cubic meters per hectare. The larger the number, the greater the potential productivity. Potential productivity is based on the site index and the point where mean annual increment is the greatest.

The second part of the ordination symbol, a letter, indicates the major kind of soil limitation affecting use and management. The letter *R* indicates a soil that has a significant limitation because of steepness of slope. The letter *X* indicates that a soil has restrictions because of stones or rocks on the surface. The letter *W* indicates a soil in which excessive water, either seasonal or year-round, causes a significant limitation.

The letter *T* indicates a soil that has, within the root zone, excessive alkalinity or acidity, sodium salts, or other toxic substances that limit the development of desirable trees. The letter *D* indicates a soil that has a limitation because of a restricted rooting depth, such as a shallow soil that is underlain by hard bedrock, a hardpan, or other layers that restrict roots. The letter *C* indicates a soil that has a limitation because of the kind or amount of clay in the upper part of the profile. The letter *S* indicates a dry, sandy soil. The letter *A* indicates a soil having no significant limitations that affect forest use and management. If a soil has more than one limitation, the priority is as follows: *R*, *X*, *W*, *T*, *D*, *C*, and *S*.

Ratings of the *erosion hazard* indicate the probability that damage may occur if site preparation or harvesting activities expose the soil. The risk is *slight* if no particular preventive measures are needed under ordinary conditions; *moderate* if erosion-control measures are needed for particular silvicultural activities; and *severe* if special precautions are needed to control erosion for most silvicultural activities. Ratings of moderate or severe indicate the need for construction of higher standard roads, additional maintenance of roads, additional care in planning harvesting and reforestation activities, and the use of special equipment.

Ratings of *equipment limitation* indicate limits on the use of forest management equipment, year-round or seasonal, because of such soil characteristics as slope, wetness, and susceptibility of the surface layer to compaction. As slope gradient and length increase, it becomes more difficult to use wheeled equipment. On the steeper slopes, tracked equipment is needed. On the steepest slopes, even tracked equipment cannot be operated and more sophisticated systems are needed. The rating is *slight* if equipment use is restricted by wetness for less than 2 months and if special equipment is not needed. The rating is *moderate* if slopes are so steep that wheeled equipment cannot be operated safely across the slope, if wetness restricts equipment use from 2 to 6 months per year, or if special equipment is needed to prevent or minimize compaction. The rating is *severe* if slopes are so steep that tracked equipment cannot be operated safely across the slope, if wetness restricts equipment for more than 6 months per year, or if special equipment is needed to prevent or minimize compaction. Ratings of moderate or severe indicate a need to choose the best suited equipment and to carefully plan the timing of harvesting and other management activities.

Ratings of *seedling mortality* refer to the probability of the death of naturally occurring or properly planted seedlings of good stock in periods of normal rainfall, as influenced by kinds of soil or topographic features. Seedling mortality is caused primarily by too much water or too little water. The factors used in rating a soil for seedling mortality are texture of the surface layer, depth to a seasonal high water table and the length of the periods when the water table is high, and rooting depth. The mortality rate generally is highest on soils that have a sandy or clayey surface layer. The risk is *slight* if, after site preparation, expected mortality is less than 25 percent; *moderate* if expected mortality is between 25 and 50 percent; and *severe* if expected mortality exceeds 50 percent. Ratings of moderate or severe indicate that it may be necessary to use containerized or larger than usual planting stock or to make special site preparations, such as bedding, furrowing, installing a surface drainage system, and providing artificial shade for seedlings. Reinforcement planting is often needed if the risk is moderate or severe.

*Windthrow hazard* is the likelihood that trees will be uprooted by the wind because the soil is not deep enough for adequate root anchorage. The main restrictions that affect rooting are a seasonal high water table and the depth to bedrock, a fragipan, or other limiting layers. A rating of *slight* indicates that under normal conditions no trees are blown down by the wind. Strong winds may damage trees, but they do not uproot them. A rating of *moderate* indicates that some trees can be blown down during periods when the soil is wet and winds are moderate or strong. A rating of *severe* indicates that many trees can be blown down during these periods.

Ratings of *plant competition* indicate the likelihood of the growth or invasion of undesirable plants. Plant competition is more severe on the more productive soils, on poorly drained soils, and on soils having a restricted root zone that holds moisture. The risk is *slight* if competition from undesirable plants hinders adequate natural or artificial reforestation but does not necessitate intensive site preparation and maintenance. The risk is *moderate* if competition from undesirable plants hinders natural or artificial reforestation to the extent that intensive site preparation and maintenance are needed. The risk is *severe* if competition from undesirable plants prevents adequate natural or artificial reforestation unless the site is intensively prepared and maintained. A moderate or severe rating indicates the need for site preparation to ensure the development of an adequately stocked stand. Managers must plan site preparation measures to ensure reforestation without delays.

In table 7, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

*Trees to manage* are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

## Recreation

The soils of the survey area are rated in tables 8a and 8b according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season

when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in tables can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

**Table 8a**

*Camp areas* require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

*Picnic areas* are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

*Playgrounds* require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

**Table 8b**

*Paths and trails* for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

*Off-road motorcycle trails* require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

*Golf fairways* are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are

based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

## Wildlife Habitat

Glynda Clardy, wildlife biologist, Natural Resources Conservation Service, helped prepare this section.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 9, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

Plants that are frequently found in wildlife habitats are described in the following paragraphs.

*Grain and seed crops* are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, oats, and sorghum.

*Grasses and legumes* are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are bahiagrass, lovegrass, clover, and vetch.

*Wild herbaceous plants* are native or naturally established grasses, legumes and forbs. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are big bluestem, Indiangrass, goldenrod, beggarweed, ragweed, and partridge pea.

*Hardwood trees* and woody mid-story produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, persimmon, hawthorn, dogwood, and hickory.

*Coniferous plants* furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, cedar, and cypress.

*Wetland plants* are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, rushes, and sedges.

*Shallow water areas* have an average depth of less than 3 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. Examples of shallow water areas are marshes, waterfowl feeding or roosting (wood duck) areas, and ponds.

Habitat types for various kinds of wildlife are described in the following paragraphs.

*Habitat for openland wildlife* consists of cropland, pasture, meadows, prairies, and abandoned fields that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include, bobwhite quail, meadowlark, field sparrow, cottontail, red fox, and deer.

*Habitat for forestland wildlife* consists of areas of deciduous and/or coniferous plants and associated shrubs, grasses, legumes, and forbs. Wildlife attracted to these areas include, wild turkey, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, deer, and bear.

*Habitat for wetland wildlife* consists of naturally existing open or wooded swamps and natural or artificial shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, beaver, and bear.

## Hydric Soils

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed.

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria

are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999), "Keys to Soil Taxonomy" (Soil Survey Staff, 2006), and the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1998).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

The following map units meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1998).

BkA Bibb-luka complex, 0 to 1 percent slopes, frequently flooded  
FnA Fluvaquents, ponded  
JnB Jena-Una-Mantachie complex, gently undulating, frequently flooded  
TbA Trebloc silt loam, ponded  
UaB Urbo-Una complex, gently undulating, frequently flooded

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The following map unit, in general, does not meet the definition of hydric soils because it does not have any of the hydric soil indicators. A portion of this map unit, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

LfA Leaf silt loam, 0 to 1 percent slopes, frequently flooded

## Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading "Soil Properties."

*Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.*

*The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.*

*Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.*

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, permeability, corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, earthfill, and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

## **Building Site Development**

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 10a and 10b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

**Table 10a**

*Dwellings* are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

*Small commercial buildings* are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

**Table 10b**

*Local roads and streets* have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

*Shallow excavations* are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

*Lawns and landscaping* require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water

capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

## Sanitary Facilities

The soils of the survey area are rated in tables 11a and 11b according to limitations that affect their suitability for sanitary facilities. Soils are rated for septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect sanitary facilities. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited.....	0.00
Slightly limited.....	0.01 to 0.30
Moderately limited.....	0.31 to 0.60
Limited.....	0.61 to 0.99
Very limited.....	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

**Table 11a**

*Septic tank absorption fields* are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a

result, the ground water may be contaminated. Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, hillside seepage, and contamination of ground water, can affect public health.

*Sewage lagoons* are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

**Table 11b**

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2

feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

*Daily cover for landfill* is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

## Construction Materials

Tables 12a and 12b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

**Table 12a**

*Gravel* and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 12a, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of gravel or sand are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains gravel or sand, the soil is considered a likely source regardless of thickness. The assumption is that the gravel or sand layer below the depth of observation exceeds the minimum thickness (ASTM, 2001).

The soils are rated *good*, *fair*, or *poor* as potential sources of gravel and sand. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of gravel or sand. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

**Table 12b**

The soils are rated *good*, *fair*, or *poor* as potential sources of reclamation material, roadfill, and topsoil. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, or topsoil. The lower the number, the greater the limitation.

*Reclamation material* is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

*Roadfill* is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

*Topsoil* is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

## Water Management

The soils of the survey area are rated in tables 13a and 13b according to limitations that affect their suitability for water management. Soils are rated for pond reservoir areas, drainage, irrigation, terraces and diversions, and grassed waterways. Restrictive features that affect each soil for the specified use are also listed in the table.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

*Slightly limited* indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. *Moderately limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Limited* indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but overcoming them generally requires special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate or high maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The numerical ratings are shown as decimal fractions ranging from 0.00 to 1.00. Limitation classes are assigned as follows:

Not limited.....	0.00
Slightly limited.....	0.01 to 0.30
Moderately limited.....	0.31 to 0.60
Limited .....	0.61 to 0.99
Very limited .....	1.00

The numerical ratings used to express the severity of individual limitations indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation.

Limitation class terms and numerical ratings are shown for each limiting soil feature listed. As many as three soil features may be listed for each component. The overall limitation rating for the component is based on the most severe limitation.

**Table 13a**

*Pond reservoir areas* hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock, or other permeable material. Slope can affect the storage capacity of the reservoir area.

*Drainage* is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, permeability, depth to a water table, ponding, slope, and flooding. Excavating and grading and the stability of ditchbanks are affected by depth to bedrock or a cemented pan, large stones, slope, and the likelihood that cutbanks will cave. The productivity of the soil after drainage is adversely affected by extreme acidity or by toxic substances in the root zone, such as salts, sodium, and sulfur. The availability of drainage outlets is not considered in the ratings.

**Table 13b**

*Irrigation* is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to a water table, ponding, flooding, available water capacity, intake rate, permeability, erodibility, and slope. The construction of a system is affected by large stones and depth to bedrock. The performance of a system is affected by the depth of the root zone, reaction, and the amount of salts, sodium, sulfur, lime, or gypsum.

*Terraces and diversions* are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, a water table, ponding, large stones, and depth to bedrock affect the construction of terraces and diversions. A restricted rooting depth, erodibility, an excessively coarse texture, and restricted permeability adversely affect maintenance.

*Grassed waterways* are natural or constructed channels, generally broad and shallow, that conduct surface water to outlets at a nonerosive velocity. Large stones, a water table, slope, and depth to bedrock affect the construction of grassed waterways. Erodibility, soil moisture regime, available water capacity, restricted rooting depth, restricted permeability, and toxic substances, such as salts and sodium, affect the growth and maintenance of the grass after construction.

## Catastrophic Mortality

Table 14 shows the degree and kind of limitations that affect the disposal of poultry carcasses by the pit or trench method. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Well suited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected of a properly designed and installed system. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very poorly suited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

The table rates the soils as sites for disposing of dead animals by placing the carcasses in successive layers in an excavated pit or trench. The soils are evaluated from the surface to a depth of 79 inches. Onsite investigation to a greater depth is needed before final acceptance of a site. The ratings in the tables are based on the soil properties that affect attenuation of suspended, soil solution, gaseous decomposition products, and microorganisms; construction and maintenance of the site; and public health. Improper site selection, design, or installation may cause contamination of ground water, seepage, and contamination of stream systems from surface drainage or floodwater.

The soil properties that influence the risk of pollution, the ease of excavation, trafficability, and revegetation are the major considerations. Pollution is a hazard on soils that are subject to flooding or have a water table within the depth of excavation. These soils cannot be easily excavated. Soils that have high saturated hydraulic conductivity ( $K_{sat}$ ) or are shallow to bedrock, a cemented pan, or stones and boulders are limited because these features interfere with the installation, performance, and maintenance of the system. Slope affects road construction, performance of the roads, and the control of surface water around the trench. Also, it can cause difficulty in construction where the trench or pit bottom must be kept level and oriented to follow the contour of the land.

The ease with which the trench or pit is dug and with which a soil can be used as daily and final cover is based largely on soil texture and consistence, which affect workability both when the soil is dry and when it is wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and difficult to place as a uniformly thick cover over a layer of carcasses. The uppermost part of the final cover should be soil material that favors the growth of plants. It should not contain excess sodium or salts and should not be too acid. In comparison with other horizons, the surface layer in most soils has the best workability and the highest content of organic matter. Thus, it may be desirable to stockpile the surface layer for use in the final blanketing of the fill.

# Soil Properties

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Data relating to soil properties are collected during the course of the soil survey.

Soil properties are ascertained by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

## Engineering Soil Properties

Table 15 gives the engineering classifications and the range of properties for the layers of each soil in the survey area.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly." Textural terms are defined in the Glossary.

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2001) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2000)

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement,

the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

*Liquid limit* and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

## Physical Soil Properties

Table 16 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

*Sand* as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

*Silt* as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

*Clay* as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

*Moist bulk density* is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at  $1/3$ - or  $1/10$ -bar (33- or 10-kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water

and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

*Permeability* ( $K_{sat}$ ) refers to the ability of a soil to transmit water or air. The term “permeability,” as used in soil surveys, indicates saturated hydraulic conductivity ( $K_{sat}$ ). The estimates in the table indicate the rate of water movement, in inches per hour, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

*Available water capacity* refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

*Linear extensibility* refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at  $1/3$ - or  $1/10$ -bar (33- or 10-kPa) moisture tension and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is *low* if the soil has a linear extensibility of less than 3 percent; *moderate* if 3 to 6 percent; *high* if 6 to 9 percent; and *very high* if more than 9 percent. If the linear extensibility is more than 3 percent, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

*Organic matter* is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

*Erosion factors* are shown in the table as the K factor ( $K_w$  and  $K_f$ ) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

*Erosion factor  $K_w$*  indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

*Erosion factor  $K_f$*  indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

*Erosion factor T* is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

*Wind erodibility groups* are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the

least susceptible. The groups are described in the "National Soil Survey Handbook," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

*Wind erodibility index* is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

## Chemical Soil Properties

Table 17 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Cation-exchange capacity* is the total amount of extractable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

*Effective cation-exchange capacity* refers to the sum of extractable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

*Soil reaction* is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

*Calcium carbonate* equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil.

*Gypsum* is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

*Salinity* is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

*Sodium adsorption ratio* (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

## Water Features

Table 18 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

*Hydrologic soil groups* are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Surface runoff* refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

*Water table* refers to a saturated zone in the soil. Table 18 indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

*Ponding* is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. Table 18 indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

*Flooding* is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

*Duration* and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual

weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

# Classification of the Soils

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The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. Table 19 shows the classification of the soils in the survey area. The categories are defined in the following paragraphs.

**ORDER.** Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

**SUBORDER.** Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udult (*Ud*, meaning humid, plus *ult*, from Ultisol).

**GREAT GROUP.** Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludults (*Hapl*, meaning minimal horizonation, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

**SUBGROUP.** Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludults.

**FAMILY.** Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, siliceous, active, thermic Typic Hapludults.

**SERIES.** The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile. The Olla series is an example of a series that is classified as fine-loamy, siliceous, active, thermic Typic Hapludults.

## Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each

series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the "Soil Survey Manual" (Soil Survey Division Staff, 1993). Many of the technical terms used in the descriptions are defined in "Soil Taxonomy" (Soil Survey Staff, 1999) and in "Keys to Soil Taxonomy" (Soil Survey Staff, 2006). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

In some instances, the typical pedon for a series is located outside of Wayne County. The selection of a typical pedon is based on the range of characteristics of the series as it occurs throughout a particular major land resource area. The Sumter series, for example, is common in MLRA 135A (Alabama and Mississippi Blackland Prairie), which extends from eastern Alabama through eastern Mississippi into southern Tennessee. The typical pedon for the Sumter series is in Choctaw County, Alabama. The soil properties of this pedon are representative of the Sumter soils as they occur throughout MLRA 135A.

## **Alaga Series**

*Depth class:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid

*Parent material:* Sandy marine sediments

*Landscape:* Coastal Plain

*Landform:* Ridges

*Landform position:* Summits and shoulder slopes

*Slope:* 0 to 5 percent

*Taxonomic classification:* Thermic, coated, Typic Quartzipsamments

### **Commonly Associated Soils**

The Alaga series is commonly associated with Boykin, Jena, McLaurin, Smithdale, and Wadley soils.

- The Boykin soils are loamy in the lower part of the subsoil and are in positions similar to those of the Alaga soils.
- The well drained Jena soils are on natural levees along perennial drains.
- The well drained McLaurin soils are coarse-loamy, have an argillic horizon, and are on the higher ridges.
- The well drained Smithdale soils have a fine-loamy argillic horizon and are on side slopes.
- The somewhat excessively drained Wadley soils have a thick surface horizon that is 40 or more inches thick and are in positions similar to those of the Alaga soils.

### **Typical Pedon**

Alaga fine sand, 0 to 5 percent slopes; in a wooded area about 12 miles northwest of Waynesboro in Wayne County; 1,700 feet west and 2,000 feet north of the southeast corner of sec. 27, T. 10 N., R. 8 W.; USGS Eucutta topographic quadrangle; lat. 31 degrees 48 minutes 13.7 seconds N. and long. 88 degrees 46 minutes 44.1 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) fine sand; single grain; loose; many fine and common medium roots; very strongly acid; clear smooth boundary.

C1—6 to 10 inches; yellowish brown (10YR 5/4) loamy sand; single grain; loose; many fine and few medium roots; very strongly acid; clear wavy boundary.

C2—10 to 26 inches; yellowish brown (10YR 5/8) sand; single grain; loose; common fine roots; very strongly acid; gradual wavy boundary.

- C3—26 to 31 inches; brownish yellow (10YR 6/6) sand; single grain; loose; common fine roots; very strongly acid; gradual wavy boundary.
- C4—31 to 42 inches; yellow (10YR 7/6) fine sand; single grain; loose; few fine roots; very strongly acid; gradual wavy boundary.
- C5—42 to 67 inches; very pale brown (10YR 8/4) fine sand; single grain; loose; common fine brownish yellow (10YR 6/6) spots and light gray (10YR 7/2) streaks of clean sand; few fine roots; 2 percent fine rounded quartz gravel; very strongly acid; gradual wavy boundary.
- C6—67 to 78 inches; very pale brown (10YR 7/4) fine sand; single grain; loose; common fine prominent reddish yellow (5YR 6/6) spots and common fine distinct light gray (10YR 7/2) streaks of clean sand; 2 percent fine rounded quartz gravel; very strongly acid; gradual wavy boundary.
- C7—78 to 83 inches; very pale brown (10YR 7/4) fine sand; single grain; loose; few thin discontinuous reddish yellow (7.5YR 6/6) lamella; common fine light gray (10YR 7/2) streaks of clean sand; 2 percent fine rounded quartz gravel; very strongly acid.

### ***Range in Characteristics***

*Thickness of underlying soil material:* More than 80 inches

*Reaction:* Very strongly acid to moderately acid, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4

Texture—fine sand

*C horizon, upper part:*

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8

Texture—loamy sand, loamy fine sand, sand, or fine sand

*C horizon, lower part:*

Color—hue of 7.5YR to 2.5Y, value of 5 to 8, and chroma of 3 to 8; brownish and yellowish spots and streaks of clean sand

Texture—loamy sand, loamy fine sand, sand, or fine sand

## **Annemaine series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Stratified clayey and loamy sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Planar to slightly convex slopes adjacent to streams

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine, mixed, semiactive, thermic Aquic Hapludults

### ***Commonly Associated Soils***

The Annemaine series is commonly associated with Bigbee, Cahaba, Dogue, Iuka, Latonia, Leaf, Quitman, and Trebloc soils.

- The somewhat excessively drained Bigbee soils have a sandy control section and are in the slightly higher positions.
- The well drained Cahaba soils have a fine-loamy argillic horizon and are in positions that are similar to those of the Annemaine soils or slightly higher and more convex.
- The moderately well drained Dogue soils have a brownish subsoil and are in positions that are similar to those of the Annemaine soil or slightly lower.

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- The well drained luka soils are on natural levees along streams.
- The Latonia soils are more sandy than the Annemaine soils and are in linear to slightly convex positions.
- The poorly drained Leaf soils have a fine argillic horizon and are in backswamps of flood plains.
- The somewhat poorly drained Quitman soils are in the slightly higher positions.
- The poorly drained Trebloc soils have a fine-silty argillic horizon and are in drainageways and depressions.

### ***Typical Pedon***

Annemaine fine sandy loam, 0 to 2 percent slopes; in a wooded area about 15 miles southeast of Waynesboro; 1,320 feet west and 1,700 feet south of the northeast corner of sec. 19, T. 6 N., R. 5 W.; USGS Knobtown topographic quadrangle; lat. 31 degrees 28 minutes 31.8 seconds N. and long. 88 degrees 31 minutes 20.6 seconds W.

- Ap1—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine, common medium, and few coarse roots; strongly acid; clear smooth boundary.
- Ap2—2 to 7 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; friable; many fine and few medium and coarse roots; strongly acid; abrupt wavy boundary.
- Bt1—7 to 15 inches; red (2.5YR 4/6) clay; moderate medium and coarse subangular blocky structure; firm, sticky and plastic; many fine roots; few fine and very fine tubular pores; common faint clay films on faces of peds and along pores; very strongly acid; gradual wavy boundary.
- Bt2—15 to 23 inches; red (2.5YR 4/6) clay; moderate fine to coarse subangular blocky structure; firm, sticky and plastic; common fine roots; few fine and very fine tubular pores; common faint clay films on faces of peds and along pores; few distinct yellowish red (5YR 5/6) pressure faces on peds; common fine prominent yellowish brown (10YR 5/4) and few fine distinct red (10R 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine prominent light brownish gray (10YR 6/2) irregularly shaped masses of iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bt3—23 to 39 inches; yellowish red (5YR 5/6) clay; moderate fine and medium subangular blocky structure; firm, sticky and plastic; few fine roots; few fine and very fine tubular pores; common faint clay films on faces of peds and along pores; few distinct reddish brown (5YR 4/4) pressure faces on peds; many fine prominent red (10R 4/6) and many medium prominent brown (7.5YR 4/4) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine prominent light brownish gray (10YR 6/2) irregularly shaped masses of iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bt4—39 to 46 inches; yellowish red (5YR 5/6) clay loam; moderate coarse subangular blocky structure; friable; few faint clay films on faces of peds; few fine roots; many medium prominent red (2.5YR 4/8) and many coarse prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many coarse prominent light gray (10YR 6/1) irregularly shaped masses of iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- BC—46 to 55 inches; strong brown (7.5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; few coarse prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine and medium prominent light brownish gray (10YR 6/2) irregularly shaped masses of iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

- C1—55 to 64 inches; strong brown (7.5YR 5/8) sandy loam; massive; friable; few medium prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine and medium prominent light brownish gray (10YR 6/2) irregularly shaped masses of iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- C2—64 to 73 inches; yellowish red (5YR 5/8) loamy sand; structureless; loose; few thin strata of sandy loam; common coarse prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- C4—73 to 81 inches; reddish yellow (7.5YR 6/8) stratified layers of loamy sand, fine sand, and sandy loam; structureless; loose; common coarse prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 38 to more than 60 inches

*Reaction:* Very strongly acid to slightly acid in the A and E horizons, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons

*A or Ap horizon:*

Color—hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4

Texture—sandy loam, fine sandy loam, or loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray within the upper 20 inches of the horizon and iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 2.5YR to 10YR (dominantly 2.5YR to 7.5YR), value of 4 or 5, and chroma of 6 to 8; or multicolored in shades of red, yellow, gray, and brown

Texture—sandy clay loam, loam, or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*C horizon:*

Color—hue of 2.5YR to 2.5Y, value of 5 to 8, and chroma of 1 to 8; or multicolored in shades of red, yellow, brown, and gray.

Texture—fine sand, loamy sand, loamy fine sand, sandy loam, or fine sandy loam; or stratified layers of sand to clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Benndale Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and side slopes

*Slope:* 0 to 15 percent

*Taxonomic classification:* Coarse-loamy, siliceous, semiactive, thermic Typic Paleudults

### ***Commonly Associated Soils***

The Benndale series is commonly associated with Heidelberg, Lorman, Malbis, McLaurin, Paxville, Petal, Smithdale, Susquehanna, and Wadley soils.

- The Heidelberg soils have reddish colors in the subsoil and are on side slopes.
- The moderately well drained Lorman soils have more clay than the Benndale soils and are on the longer slopes.
- The Malbis soils have a fine-loamy subsoil with more than 5 percent plinthite in the lower part and are in the higher positions.
- The McLaurin soils have reddish colors in the subsoil and are in positions similar to those of the Benndale soils.
- The very poorly drained Paxville soils are in depressions.
- The moderately well drained Petal soils are on the slightly higher, more convex slopes.
- The Smithdale soils have a red subsoil, are fine-loamy, and are on side slopes.
- The Susquehanna soils are in a fine textural family and are in positions similar to those of the Benndale soils.
- The somewhat excessively drained Wadley soils have thick, sandy surface and subsurface layers and are on side slopes and shoulder slopes.

### ***Typical Pedon***

Benndale fine sandy loam, 2 to 5 percent slopes; about 5 miles west of Leakesville in Greene County; about 1,450 feet east and 2,590 feet south of the northwest corner of sec. 1, T. 2 N., R. 7 W.; USGS Jonathan topographic quadrangle; lat. 31 degrees 9 minutes 54.0 seconds N and long. 88 degrees 39 minutes 0.7 seconds W

Ap1—0 to 3 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; many fine and medium and few coarse roots; moderately acid; clear smooth boundary.

Ap2—3 to 6 inches; brown (10YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; many fine and medium and few coarse roots; strongly acid; clear smooth boundary.

EB—6 to 10 inches; brown (10YR 5/3) fine sandy loam; weak medium subangular blocky structure; friable; common fine and few medium roots; very strongly acid; clear wavy boundary.

Bt1—10 to 18 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse subangular blocky structure; friable; few fine and medium roots; sand grains bridged with clay; moderately acid; gradual wavy boundary.

Bt2—18 to 27 inches; strong brown (7.5YR 5/6) fine sandy loam; weak coarse subangular blocky structure; friable; few fine and medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—27 to 33 inches; strong brown (7.5YR 5/8) fine sandy loam; weak medium prismatic structure parting to weak coarse subangular blocky; friable; slightly brittle; few fine roots; common faint clay films on faces of peds; few fine prominent red (2.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; few thin coatings of clean sand on prism faces; very strongly acid; gradual wavy boundary.

Bt4—33 to 45 inches; reddish yellow (7.5YR 6/8) fine sandy loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; friable; slightly brittle; few fine roots; common faint clay films on faces of peds; few fine

prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; few thin coatings of clean sand on prism faces; very strongly acid; gradual wavy boundary.

Bt5—45 to 57 inches; reddish yellow (7.5YR 6/8) fine sandy loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; friable; slightly brittle; few fine roots; few faint clay films on faces of peds; common thin coatings of clean sand on prism faces; very strongly acid; gradual wavy boundary.

Bt6—57 to 70 inches; strong brown (7.5YR 5/6) fine sandy loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; friable; slightly brittle; few faint clay films on faces of peds; common medium distinct yellowish red (5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries; common thin coatings of clean sand on prism faces; very strongly acid; gradual wavy boundary.

Bt7—70 to 81 inches; strong brown (7.5YR 5/8) fine sandy loam; weak medium prismatic structure parting to weak fine and medium subangular blocky; friable; few faint clay films on faces of peds; common thin coatings of clean sand on prism faces; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*Other features:* Some pedons have less than 5 percent plinthite in the lower part of solum.

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—fine sandy loam or loamy fine sand

*E/B horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 4

Texture—fine sandy loam, sandy loam, loam, or loamy sand

*EB horizon:*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—fine sandy loam or loamy fine sand

*Bt horizon, upper part:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—fine sandy loam or loam

*Bt horizon, lower part:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—fine sandy loam, sandy clay loam, loam, or sandy loam

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Bibb Series**

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Permeability:* Moderate

*Parent material:* Stratified loamy and sandy alluvial sediments on flood plains

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Planar to slightly concave slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents

### ***Commonly Associated Soils***

The Bibb series is commonly associated with Harleston, luka, Jena, Johnston, Mantachie, Quitman, Stough, Una, and Urbo soils.

- The moderately well drained Harleston soils are in the higher positions, on terraces.
- The moderately well drained luka soils are on natural levees of flood plains.
- The well drained Jena soils are on natural levees of flood plains.
- The very poorly drained Johnston soils are in depressions and seep lines on the flood plains.
- The somewhat poorly drained Mantachie soils are fine-loamy and are in positions similar to those of the Bibb soils.
- The somewhat poorly drained Quitman soils are in the higher positions, on terraces.
- The somewhat poorly drained Stough soils are in the higher positions, on terraces.
- The poorly drained Una soils are clayey and are in sloughs and along old channels.
- The somewhat poorly drained Urbo soils are clayey and are on ridges of flood plains.

### ***Typical Pedon***

Bibb silt loam, in an area of Bibb-luka complex, 0 to 2 percent slopes, frequently flooded; in a wooded area about 13.5 miles southwest of Waynesboro; 2,900 feet west and 1,125 feet south of the northeast corner of sec. 13, T. 8 N., R. 9 W.; USGS Whistler topographic quadrangle; lat. 31 degrees 39 minutes 46.1 seconds N. and long. 88 degrees 51 minutes 4.9 seconds W.

A—0 to 8 inches; brown (10YR 4/3) silt loam; weak fine granular structure; friable; many fine and common medium and coarse roots; very strongly acid; clear smooth boundary.

Ag—8 to 13 inches; dark gray (10YR 4/1) silt loam; weak fine subangular blocky structure; friable; few coarse, common medium, and many fine roots; few fine distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries along roots; very strongly acid; clear wavy boundary.

Cg1—13 to 22 inches; light gray (10YR 6/1) very fine sandy loam; massive; friable; few medium and common fine roots; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries along roots and common fine and medium distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Cg2—22 to 29 inches; light brownish gray (10YR 6/2) very fine sandy loam; massive; friable; common fine roots; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries along roots and common fine and medium distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Cg3—29 to 35 inches; light brownish gray (10YR 6/2) very fine sandy loam; massive; friable; few fine roots; common fine and medium distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries in the matrix and common fine prominent strong brown (7.5YR 5/8) masses of iron

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accumulation with clear boundaries along roots; very strongly acid; gradual wavy boundary.

Ab—35 to 42 inches; dark gray (10YR 4/1) very fine sandy loam; massive; friable; few fine roots; few medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; clear wavy boundary.

Cbg1—42 to 60 inches; light gray (10YR 7/1) fine sand; massive; very friable; few fine roots; few medium distinct very pale brown (10YR 7/3) and few medium distinct yellowish brown (10YR 5/4) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Cbg2—60 to 74 inches; grayish brown (10YR 5/2) fine sand; massive; very friable; few fine roots; common medium distinct dark grayish brown (10YR 4/2) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; strongly acid; gradual wavy boundary.

Ab'—74 to 81 inches; dark grayish brown (10YR 4/2) fine sandy loam; massive; friable; few fine roots; common fine and medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; few fine distinct black (10YR 2/1) organic stains along faces of peds; strongly acid.

### ***Range in Characteristics***

*Thickness of underlying soil material:* 80 inches or more

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

#### *A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

Texture—silt loam

#### *Ag horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 1 or 2

Texture—very fine sandy loam, fine sandy loam, or silt loam

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

#### *Cg horizon:*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 2 or less; or neutral in hue and value of 5 to 7

Texture—sandy loam, fine sandy loam, or very fine sandy loam in upper part and sandy loam, fine sandy loam, very fine sandy loam, loamy sand, loamy fine sand, or fine sand in the lower part; some thin strata that contain gravel and fragments of organic matter in some pedons

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

#### *Ab horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 1 or 2

Texture—very fine sandy loam, fine sandy loam, or loamy fine sand

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

#### *Cbg horizon:*

Color—hue of 10YR to 5Y, value of 5 to 8, and chroma of 2 or less; or neutral in hue and value of 5 to 7

Texture—sandy loam, fine sandy loam, loamy fine sand, or fine sand; some thin strata that contain gravel and fragments of organic matter in some pedons

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Bigbee Series**

*Depth class:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid

*Parent material:* Sandy alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Slope:* 0 to 5 percent

*Taxonomic classification:* Thermic, coated Typic Quartzipsamments

### **Commonly Associated Soils**

The Bigbee series is commonly associated with Annemaine, Cahaba, Dogue, Harleston, luka, and Latonia soils.

- The moderately well drained Annemaine soils have a red, clayey argillic horizon and are in the slightly lower positions.
- The well drained Cahaba soils have a red, fine-loamy argillic horizon and are in positions similar to those of the Bigbee soils or slightly lower.
- The fine textured Dogue soils are in the higher, more convex positions.
- The moderately well drained Harleston soils have a brownish argillic horizon and are in the slightly lower positions.
- The well drained luka soils are on natural levees along streams.
- The well drained Latonia soils have a brownish argillic horizon and are in the slightly lower positions.

### **Typical Pedon**

Bigbee loamy fine sand, 0 to 5 percent slopes, rarely flooded; in a wooded area about 14 miles west of Leakesville in Greene County; 2,300 feet east and 800 feet north of the southwest corner of sec. 20, T. 2 N., R. 8 W.; USGS McClain topographic quadrangle; lat. 31 degrees 6 minutes 56.2 seconds N. and long. 88 degrees 49 minutes 13.9 seconds W.

Ap1—0 to 4 inches; very dark grayish brown (10YR 3/2) loamy fine sand; weak fine granular structure; loose; many fine and common medium roots; very strongly acid; clear smooth boundary.

Ap2—4 to 8 inches; brown (10YR 4/3) loamy fine sand; weak fine granular structure; loose; many fine and common medium roots; very strongly acid; clear wavy boundary.

C1—8 to 23 inches; yellowish brown (10YR 5/6) loamy sand; single grain; loose; common fine and medium roots; very strongly acid; gradual wavy boundary.

C2—23 to 33 inches; yellowish brown (10YR 5/8) sand; single grain; loose; common fine roots; very strongly acid; gradual wavy boundary.

C3—33 to 45 inches; brownish yellow (10YR 6/6) sand; single grain; loose; common fine and medium distinct yellowish brown (10YR 5/6) and many medium distinct very pale brown (10YR 7/4) masses of iron accumulation throughout the matrix; few fine roots; very strongly acid; gradual wavy boundary.

C4—45 to 54 inches; very pale brown (10YR 7/4) sand; single grain; loose; common medium distinct brownish yellow (10YR 6/6) masses of iron accumulation throughout the matrix; few fine roots; very strongly acid; gradual wavy boundary.

- C5—54 to 65 inches; white (10YR 8/2) sand; single grain; loose; many coarse faint very pale brown (10YR 7/4) and few fine distinct brownish yellow (10YR 6/6) masses of iron accumulation throughout the matrix; few fine roots; very strongly acid; gradual wavy boundary.
- C6—65 to 86 inches; very pale brown (10YR 7/4) sand; single grain; loose; many coarse faint very pale brown (10YR 8/3), common medium distinct brownish yellow (10YR 6/6), and few fine prominent reddish yellow (7.5YR 6/8), red (2.5YR 5/8), and brownish yellow (10YR 6/6) masses of iron accumulation throughout the matrix; few fine roots; very strongly acid; gradual wavy boundary.
- C7—86 to 94 inches; white (2.5Y 8/2) sand; single grain; loose; very strongly acid.

### ***Range in Characteristics***

*Thickness of underlying soil material:* More than 80 inches

*Reaction:* Very strongly acid to moderately acid, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4

Texture—loamy fine sand

*C horizon, upper part:*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 4 to 8

Texture—loamy sand, loamy fine sand, sand, or fine sand

*C horizon, lower part:*

Color—hue of 7.5YR to 2.5Y, value of 4 to 8, and chroma of 2 to 8

Texture—loamy sand, loamy fine sand, sand, or fine sand

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Boswell Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Parent material:* Clayey sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridges and toeslopes

*Slope:* 2 to 12 percent

*Taxonomic classification:* Fine, mixed, active, thermic Vertic Paleudalfs

### ***Commonly Associated Soils***

The Boswell series is commonly associated with Brantley, Freest, Ichusa, Louin, Maytag, Okeelala, Savannah, Shubuta, Smithdale, Sumter, Una, and Urbo soils.

- The well drained Brantley soils are on the steeper slopes.
- The moderately well drained Freest soils are fine-loamy and are in positions similar to those of the Boswell soils.
- The somewhat poorly drained Ichusa soils are in the slightly lower positions on the smoother slopes.
- The somewhat poorly drained Louin soils are in the lower positions.
- The moderately well drained Maytag soils are in the slightly higher positions.
- The well drained Okeelala soils are on the steeper slopes.
- The moderately well drained Savannah soils are fine-loamy, have a fragipan, and are on upland ridges and upper stream terraces.
- The well drained Shubuta soils are on the lower slopes.

- The well drained Smithdale soils are fine-loamy and are on side slopes.
- The well drained Sumter soils are underlain by limestone (chalk) and are on knolls.
- The poorly drained Una soils are on broad flood plains.
- The somewhat poorly drained Urbo soils are on flood plains.

### ***Typical Pedon***

Boswell fine sandy loam, 2 to 5 percent slopes, eroded; in natural seeded pine stand about 10 miles north of Waynesboro; 600 feet east and 1,200 feet south of the northwest corner of sec. 25, T. 10 N., R. 7 W.; USGS Shubuta topographic quadrangle; lat. 31 degrees 48 minutes 35.0 seconds N. and long. 88 degrees 39 minutes 11.5 seconds W.

Ap1—0 to 1 inch; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; many fine and few medium and coarse roots; very strongly acid; clear smooth boundary.

Ap2—1 to 5 inches; dark grayish brown (10YR 4/2) loam; weak fine and medium subangular blocky structure; friable; many fine and few medium and coarse roots; very strongly acid; clear smooth boundary.

E—5 to 8 inches; yellowish brown (10YR 5/4) loam; weak fine and medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear wavy boundary.

Bt1—8 to 12 inches; yellowish red (5YR 4/6) clay; moderate fine and medium subangular blocky structure; firm, sticky and plastic; common fine and few medium and coarse roots; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—12 to 18 inches; red (2.5YR 4/6) clay; strong fine and medium angular and subangular blocky structure; firm, sticky and plastic; common fine and few medium roots; many faint clay films on faces of peds; few shiny pressure faces; common fine and medium prominent brownish yellow (10YR 6/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine distinct very pale brown (10YR 7/3) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Bt3—18 to 27 inches; red (2.5YR 4/6) clay; strong fine and medium angular and subangular blocky structure; firm, sticky and plastic; few fine roots; common faint clay films on faces of peds; few shiny pressure faces; few fine fragments of ironstone; many fine and medium prominent yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine to coarse prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btssg1—27 to 48 inches; light brownish gray (10YR 6/2) clay; strong coarse angular blocky structure parting to moderate fine and medium subangular blocky; firm, very sticky and very plastic; few fine roots; common faint clay films on faces of peds; common shiny pressure faces; common large intersecting slickensides; few fine fragments of ironstone; many fine to coarse prominent red (2.5YR 4/6), common fine and medium prominent strong brown (7.5YR 5/8), and few fine prominent yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btssg2—48 to 60 inches; light brownish gray (2.5Y 6/2) clay; coarse wedge-shaped aggregates that part to moderate fine and medium angular and subangular blocky structure; firm, very sticky and very plastic; few fine roots; common faint clay films on faces of peds; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of 1/4 to 1/2 inch; few fine fragments of ironstone; common fine to coarse prominent dark red (2.5YR 3/6) and many fine and medium prominent strong brown (7.5YR 5/8) irregularly shaped masses

of iron accumulation with clear boundaries in the matrix; extremely acid; gradual wavy boundary.

BCssg—60 to 74 inches; light brownish gray (2.5Y 6/2) clay; coarse wedge-shaped aggregates that part to moderate fine and medium angular and subangular blocky structure; firm, very sticky and very plastic; few fine roots; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of  $\frac{1}{4}$  to  $\frac{1}{2}$  inch; few fine platy fragments of shale; many fine and medium prominent brownish yellow (10YR 6/8) and many fine and medium prominent reddish yellow (7.5YR 6/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common medium distinct gray (10YR 5/1) strata of iron depletions with clear boundaries in the matrix; extremely acid; gradual wavy boundary.

C—74 to 85 inches; light brownish gray (2.5Y 6/2) stratified layers of silty clay and clay; moderate fine and medium platy structure; firm, sticky and plastic; few fine distinct gray (10YR 5/1) platy fragments of shale; many medium prominent strong brown (7.5YR 5/8), common medium prominent yellowish brown (10YR 5/4), and few fine prominent yellow (2.5Y 7/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; extremely acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid in the A and Bt horizons, except where lime has been applied, and extremely acid to slightly alkaline in the BC and C horizons

*A horizon (where present):*

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3

Texture—fine sandy loam

*Ap horizon (where present):*

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3

Texture—fine sandy loam, silt loam, or loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam, sandy loam, or loam

*Bt horizon:*

Color—hue of 10YR to 5YR, value of 4 or 5, and chroma of 4 to 6, or multicolored in shades of red, yellow, brown, and gray; a gray matrix in the lower part of the horizon in most pedons

Texture—clay loam, silty clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray within 30 inches of the surface but not in the upper 10 inches of the Bt horizon and iron accumulations in shades of red, yellow, and brown

*Btssg and BCssg horizons:*

Color—hue of 10YR to 5YR, value of 5 or 6, and chroma of 1 or 2

Texture—clay loam, silty clay loam, silty clay, or clay

*BC or C horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 2; or multicolored in shades of red, yellow, brown, and gray

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## Boykin Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Hillslopes

*Landform position:* Shoulder slopes, backslopes, and footslopes

*Slope:* 5 to 15 percent

*Taxonomic classification:* Loamy, siliceous, active, thermic Arenic Paleudults

### Commonly Associated Soils

The Boykin series is commonly associated with Alaga, Heidel, Irvington, Luverne, Smithdale, and Wadley soils.

- The excessively drained Alaga soils are in positions similar to those of the Boykin soils but do not have an argillic horizon.
- The well drained Heidel soils are coarse-loamy and are in positions similar to those of the Boykin soils.
- The moderately well drained Irvington soils have thinner E horizon than the Boykin soils, have a fragipan in the lower part of the argillic horizon, and are on ridges.
- The clayey Luverne soils are on the steeper slopes.
- The well drained Smithdale soils are fine-loamy and are in positions similar to those of the Boykin soils or steeper.
- The somewhat excessively drained Wadley soils have an E horizon that is 40 or more inches thick and are in positions similar to those of the Boykin soils.

### Typical Pedon

Boykin loamy fine sand, in an area of Wadley-Boykin complex, 5 to 15 percent slopes; about 13 miles south of Waynesboro; 800 feet east and 1,950 feet north of the southwest corner of sec. 14, T. 6 N., R. 7 W.; USGS Piave topographic quadrangle; lat. 31 degrees 29 minutes 58.4 seconds N. and long. 88 degrees 40 minutes 10.8 seconds W.

A1—0 to 3 inches; brown (10YR 4/3) loamy fine sand; single grain; loose; many fine and medium and few coarse roots; strongly acid; clear smooth boundary.

A2—3 to 8 inches; yellowish brown (10YR 5/4) loamy fine sand; single grain; loose; many fine, common medium, and few coarse roots; few worm holes filled with brown (10YR 4/3) material; very strongly acid; clear smooth boundary.

E—8 to 25 inches; light yellowish brown (10YR 6/4) fine sand; single grain; loose; common fine and few medium and coarse roots; very strongly acid; clear wavy boundary.

BE—25 to 38 inches; brownish yellow (10YR 6/8) sandy loam; weak coarse subangular blocky structure; few fine roots; very strongly acid; gradual wavy boundary.

Bt1—38 to 50 inches; reddish yellow (7.5YR 6/8) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; common fine and medium distinct reddish yellow (5YR 6/6) masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Bt2—50 to 61 inches; reddish yellow (7.5YR 6/8) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; few thin ironstone fragments; common fine and medium distinct reddish yellow (5YR 6/6) and pale brown (10YR 6/4) and common fine and medium prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation; very strongly acid; gradual wavy boundary.

Bt3—61 to 78 inches; pale brown (10YR 6/4) clay loam; moderate medium to coarse subangular blocky structure; firm; common faint clay films on faces of peds; common fine and medium prominent reddish brown (5YR 5/4) and reddish yellow (7.5YR 6/8) irregularly shaped masses of iron accumulation; many fine to coarse prominent light gray (10YR 7/1) iron depletions with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 6, and chroma of 2 to 6

Texture—loamy fine sand or fine sand

*E horizon:*

Color—hue of 10YR, value of 5 to 8, and chroma of 3 to 6

Texture—loamy fine sand, loamy sand, fine sand, or sand

*BE horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 8

Texture—sandy loam, loamy sand, or fine sand

*Bt horizon:*

Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 6 to 8

Texture—dominantly sandy loam, fine sandy loam, or sandy clay loam; clay loam in the lower part in some pedons

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Brantley Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Slow

*Parent material:* Clayey sediments

*Landscape:* Coastal Plain

*Landform:* Hillslopes

*Landform position:* Side slopes and shoulder slopes

*Slope:* 5 to 35 percent

*Taxonomic classification:* Fine, mixed, active, thermic Ultic Hapludalfs

### ***Commonly Associated Soils***

The Brantley series is commonly associated with Boswell, Heidel, Leeper, Maytag, Okeelala, Prim, Ruston, Shubuta, Smithdale, Suggsville, Sumter, and Watsonia soils.

- The moderately well drained Boswell soils have a clayey argillic horizon with vertic properties and are in the lower positions.
- The Heidel soils have coarser textures than the Brantley soils and are in similar positions.
- The somewhat poorly drained Leeper soils are in stream bottoms that are subject to flooding.
- The moderately well drained Maytag soils are on the more gentle slopes.
- The Okeelala soils have a fine-loamy argillic horizon and are in positions similar to those of the Brantley soils.
- The Prim soils are shallow to bedrock and are on upper side slopes.

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- The Ruston soils have a bisqual profile and are on broad ridgetops or summits.
- The well drained Shubuta soils are in the slightly lower positions.
- The Smithdale soils have a fine-loamy argillic horizon and are in the slightly higher positions.
- The Suggsville soils are in a very fine textural family and are less sloping than the Brentley soils.
- The well drained Sumter soils are underlain by limestone (chalk) and are on convex knolls.
- The Watsonia soils are shallow to chalk and are on ridges and upper side slopes.

### ***Typical Pedon***

Brantley fine sandy loam, in an area of Brantley-Okeelala complex, 5 to 15 percent slopes, eroded; about 10 miles east of Waynesboro; 320 feet east and 2,650 feet south of the northwest corner of sec. 20, T. 9 N., R. 5 W.; USGS Denham topographic quadrangle; lat. 31 degrees 44 minutes 4.2 seconds N. and long. 88 degrees 30 minutes 56.5 seconds W.

A—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine and medium and common coarse roots; very strongly acid; clear smooth boundary.

E—2 to 6 inches; strong brown (7.5YR 4/6) fine sandy loam; weak coarse subangular blocky structure; very friable; many fine and common medium and coarse roots; very strongly acid; clear wavy boundary.

BE—6 to 10 inches; mixed 80 percent red (2.5YR 4/6) and 20 percent strong brown (7.5YR 4/6) sandy clay loam; moderate coarse subangular blocky structure; friable; common fine and medium roots; very strongly acid; gradual wavy boundary.

Bt1—10 to 28 inches; weak red (10R 4/4) clay; moderate fine to coarse subangular blocky structure; firm, slightly plastic and slightly sticky; common fine and few medium roots; many distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—28 to 42 inches; red (10R 4/6) clay loam; moderate fine and medium subangular blocky structure; firm; few fine roots; common faint clay films on faces of peds; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

Bt3—42 to 55 inches; red (10R 4/8) sandy clay loam; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries; the masses are relict redoximorphic features; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

Bt4—55 to 70 inches; red (10R 4/8) sandy loam; weak medium subangular blocky structure; friable; sand grains bridged and coated with clay; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries in the matrix; the masses are relict redoximorphic features; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

Bt5—70 to 82 inches; red (10R 4/6) sandy loam; weak medium subangular blocky structure; friable; sand grains bridged and coated with clay; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

Bt6—82 to 90 inches; red (10R 4/8) sandy loam; weak medium subangular blocky structure; friable; sand grains bridged and coated with clay; few fine prominent strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries in the matrix; the masses are relict redoximorphic features; few fine quartz pebbles; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 48 to more than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 6

Texture—fine sandy loam or sandy loam

*EB or BE horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 to 8

Texture—fine sandy loam, sandy loam, or loam

*Bt horizon:*

Color—hue of 10R, 2.5YR or 5YR, value of 3 to 5, and chroma of 6 to 8; or multicolored in shades of red, brown, and yellow

Texture—sandy clay loam, clay loam, sandy loam, or clay

Redoximorphic features—none to common masses of iron accumulation in shades of red and brown; the masses are relict redoximorphic features

*BC or C horizon (where present):*

Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8; value of 6 and chroma of 1 or 2; or multicolored in shades of red, brown, and gray

Texture—sandy loam, fine sandy loam, or loam; strata of finer or coarser texture materials in many pedons

## **Cahaba Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy and sandy alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Typic Hapludults

### **Commonly Associated Soils**

The Cahaba series is commonly associated with Annemaine, Bigbee, Dogue, luka, Jena, Latonia, Prentiss, Quitman, Trebloc, and Una soils.

- The moderately well drained Annemaine soils are clayey and are in the slightly lower positions.
- The excessively drained Bigbee soils are sandy and are in positions similar to those of the Cahaba soils or slightly higher.
- The fine textured Dogue soils are at the lower elevations on terraces.
- The well drained luka soils are in drains.
- The well drained Jena soils are brown, have less clay in subsoil than the Cahaba soils, and are on natural levees of flood plains.
- The well drained Latonia soils are in positions similar to those of the Cahaba soils but have a brown subsoil with less clay.
- The moderately well drained Prentiss soils are in the higher toeslope positions above stream terraces.
- The somewhat poorly drained Quitman soils are in the slightly higher positions on terraces.
- The poorly drained Trebloc soils are silty and are in the lower concave positions.

- The poorly drained Una soils are clayey and are in ponded sloughs and old channels.

***Typical Pedon***

Cahaba fine sandy loam, 0 to 2 percent slopes; in an pasture about 9 miles southeast of Waynesboro; 400 feet west and 1,175 feet south of the northeast corner of sec. 23, T. 7 N., R. 6 W.; USGS Buckatunna topographic quadrangle; lat. 31 degrees 33 minutes 50.4 seconds N. and long. 88 degrees 33 minutes 9.7 seconds W.

Ap1—0 to 3 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; many fine and common medium roots; moderately acid; clear smooth boundary.

Ap2—3 to 9 inches; dark yellowish brown (10YR 3/4) fine sandy loam; weak coarse subangular blocky structure; friable; many fine and common medium roots; strongly acid; clear wavy boundary.

Bt1—9 to 14 inches; yellowish red (5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; friable; common fine and few medium roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—14 to 26 inches; red (2.5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—26 to 37 inches; red (2.5YR 4/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt4—37 to 41 inches; yellowish red (5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

BC—41 to 45 inches; strong brown (7.5YR 4/6) sandy loam; weak coarse subangular blocky structure; very friable; few fine roots; very strongly acid; gradual wavy boundary.

C1—45 to 49 inches; brownish yellow (10YR 6/6) loamy sand; single grain; loose; many clean sand grains; very strongly acid; gradual wavy boundary.

C2—49 to 84 inches; light yellowish brown (10YR 6/4) fine sand; single grain; loose; many clean sand grains; very strongly acid.

***Range in Characteristics***

*Thickness of the solum:* 37 to 55 inches

*Reaction:* Very strongly acid to moderately acid, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 4

Texture—fine sandy loam or sandy loam

*BE horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 to 8

Texture—sandy loam, fine sandy loam, or loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—loam, sandy clay loam, or clay loam

*BC or CB horizon (where present):*

Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 6 to 8; or multicolored in shades of red, yellow, and brown

Texture—sandy loam, fine sandy loam, and loam

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown. The iron depletions are relic redoximorphic features.

*C horizon:*

Color—hue of 7.5YR or 10YR, value of 4 to 7, and chroma of 4 to 8

Texture—sandy loam, loamy sand, sand, or stratified fine sand, sand, loamy sand, sandy loam, and fine sandy loam

## Deerford Series

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Slow

*Parent material:* Loamy sediments that contain appreciable amounts of exchangeable sodium

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Slightly convex slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine-silty, mixed, superactive, thermic Albic Glossic Natraqualfs

### Commonly Associated Soils

The Deerford series is commonly associated with McCrory soils.

- The poorly drained McCrory soils are in slightly lower, more concave positions than the Deerford soils.

### Typical Pedon

Deerford silt loam, in an area of McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded; about 3.25 miles southwest of Jachin in Choctaw County, Alabama; 2,600 feet south and 100 feet west of the northeast corner of sec. 17, T. 14 N., R. 2 W.; USGS Jachin topographic quadrangle; lat. 32 degrees 11 minutes 6 seconds N. and long. 88 degrees 12 minutes 19 seconds W.

A—0 to 3 inches; very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; friable; many fine and medium roots; extremely acid; clear smooth boundary.

E—3 to 7 inches; grayish brown (10YR 5/2) silt loam; weak coarse subangular blocky structure; very friable; common fine and medium roots; common fine and medium faint pale brown (10YR 6/3) masses of iron accumulation; strongly acid; clear wavy boundary.

E/B—7 to 10 inches; 60 percent light brownish gray (10YR 6/2) silt loam (E); weak coarse subangular blocky structure; very friable; 40 percent pale brown (10YR 6/3) very fine sandy loam (B); weak medium subangular blocky structure; very friable; common fine roots; common fine faint light yellowish brown (10YR 6/4) masses of iron accumulation; strongly acid; abrupt wavy boundary.

B<sub>tn</sub>1—10 to 20 inches; light olive brown (2.5Y 5/6) clay loam; strong coarse columnar structure; firm; common fine and very fine roots; continuous faint clay films on vertical faces of peds; thin seams of light yellowish brown (10YR 6/4) very fine sandy loam between columns; few fine soft black masses of iron and manganese oxides; many coarse distinct light gray (10YR 6/1) iron depletions; common medium distinct yellowish brown (10YR 5/8) masses of iron accumulation; slightly acid; clear wavy boundary.

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- Btn2**—20 to 27 inches; light olive brown (2.5Y 5/3) sandy clay loam; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm; few fine roots; continuous faint clay films on vertical faces of peds; thin seams of light gray (10YR 7/2) very fine sandy loam between prisms; few fine soft black masses of iron and manganese oxides; many fine and medium distinct light brownish gray (2.5Y 6/2) iron depletions; common fine distinct olive yellow (2.5Y 6/6) masses of iron accumulation; slightly alkaline; clear wavy boundary.
- Btn3**—27 to 35 inches; light olive brown (2.5Y 5/3) clay loam; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm; continuous faint clay films on vertical faces of peds; thin seams of light gray (10YR 7/2) very fine sandy loam between prisms; few fine soft black masses of iron and manganese oxides; many medium and coarse faint light brownish gray (2.5Y 6/2) iron depletions; common medium prominent yellowish red (5YR 5/6) and strong brown (7.5YR 5/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.
- Btng**—35 to 49 inches; light brownish gray (2.5Y 6/2) loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; continuous faint clay films on vertical faces of peds; many medium distinct light olive brown (2.5Y 5/4) and olive yellow (2.5Y 6/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.
- BC**—49 to 61 inches; light brownish gray (2.5Y 6/2) loam; weak coarse subangular blocky structure; friable; common fine faint light yellowish brown (2.5Y 6/3) and common medium distinct light olive brown (2.5Y 5/6) masses of iron accumulation; moderately alkaline; clear wavy boundary.
- C**—61 to 80 inches; light gray (2.5Y 7/1) very fine sandy loam; massive; very friable; common fine and medium distinct light yellowish brown (2.5Y 6/4) and dark yellowish brown (10YR 4/6) masses of iron accumulation; moderately alkaline.

### ***Range in Characteristics***

*Thickness of the solum:* More than 40 inches

*A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture—silt loam

Reaction—extremely acid to strongly acid

*E horizon and E part of E/B horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4

Texture—silt loam or silt

Redoximorphic features (where present)—masses of iron accumulation in shades of brown, yellow, or red

Reaction—very strongly acid or strongly acid

*Btn horizon and B part of E/B horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6

Texture—commonly loam, sandy clay loam, or clay loam; thin subhorizons of very fine sandy loam or fine sandy loam in some pedons

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Reaction—strongly acid to slightly acid in the upper part and neutral to moderately alkaline in the lower part

*Btng horizon:*

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 or 2

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Reaction—slightly acid to moderately alkaline

*BC and C horizons:*

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 or 2

Texture—very fine sandy loam, loam, or sandy clay loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Reaction—neutral to moderately alkaline

## **Dogue Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Moderately slow

*Parent material:* Stratified clayey and loamy sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Planar to slightly convex slopes adjacent to streams

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine, mixed, semiactive, thermic Aquic Hapludults

### **Commonly Associated Soils**

The Dogue series is commonly associated with Annemaine, Bigbee, Cahaba, Harleston, Latonia, Una, and Urbo soils.

- The moderately well drained Annemaine soils have a reddish subsoil and are in positions similar to those of the Dogue soils.
- The somewhat excessively drained Bigbee soils have a sandy control section and are in the slightly higher positions.
- The well drained Cahaba soils have a fine-loamy subsoil and are in positions similar to those of the Dogue soils or slightly higher.
- The moderately well drained Harleston soils have a coarse-loamy subsoil and are in positions similar to those of the Dogue soils or slightly lower.
- The well drained Latonia soils have a coarse-loamy subsoil and are in positions similar to those of the Dogue soils or slightly higher.
- The poorly drained Una soils have a clayey subsoil with vertic properties and are in the lower positions in adjacent drainageways.
- The somewhat poorly drained Urbo soils have a clayey subsoil with vertic properties and are in the lower positions in adjacent drainageways.

### **Typical Pedon**

Dogue fine sandy loam, 0 to 5 percent slopes, gently undulating, rarely flooded, in a planted pine plantation about 7 miles southeast of Waynesboro; 1,050 feet north and 2,650 feet west of the southeast corner of sec. 10, T. 7 N., R. 6 W; USGS Buckatunna topographic quadrangle; lat. 31 degrees 35 minutes 0.5 seconds N. and long. 88 degrees 34 minutes 35 seconds W.

Ap—0 to 7 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine and few medium roots; very strongly acid; clear smooth boundary.

Bt1—7 to 21 inches; strong brown (7.5YR 4/6) clay; weak fine to coarse prismatic structure parting to moderate fine and medium subangular blocky; firm; many very fine to medium and few coarse and very coarse roots; few fine and very fine tubular pores throughout; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and along pores; very strongly acid; gradual wavy boundary.

Bt2—21 to 31 inches; strong brown (7.5YR 4/6) clay; weak fine to coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, sticky and

plastic; common very fine to medium roots; few very fine and fine tubular pores throughout; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and along pores; many fine to coarse faint dark yellowish brown (10YR 4/4) irregularly shaped masses of iron accumulation with clear boundaries in the interior of peds; few fine and medium distinct light brownish gray (10YR 6/2) irregularly shaped masses of iron depletions with clear boundaries in the interior of peds; very strongly acid; gradual wavy boundary.

Bt3—31 to 38 inches; dark yellowish brown (10YR 4/6) clay; weak fine to coarse prismatic structure parting to moderate medium and coarse subangular blocky; firm, slightly sticky and slightly plastic; common fine roots; few fine and very fine tubular pores throughout; many distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and along pores; many fine to coarse distinct light brownish gray (10YR 6/2) irregularly shaped masses of iron depletion with clear boundaries throughout the matrix; common fine and medium distinct dark yellowish brown (10YR 4/4) irregularly shaped masses of iron accumulation with clear boundaries in the interior of peds and common fine and medium distinct yellowish red (5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries throughout the matrix; very strongly acid; gradual wavy boundary.

Bt4—38 to 50 inches; red (5YR 5/6) clay loam; moderate fine and medium subangular blocky structure; firm, slightly sticky and slightly plastic; few fine roots; few fine and very fine tubular pores; common distinct dark yellowish brown (10YR 4/4) clay films on faces of peds and along pores; many fine to coarse grayish brown (10YR 5/2) irregularly shaped masses of iron depletions with clear boundaries throughout the matrix; common fine and medium distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries throughout the matrix; very strongly acid; abrupt wavy boundary.

2BC—50 to 63 inches; brownish yellow (10YR 6/6) fine sandy loam; weak coarse subangular blocky structure; friable; few fine and medium faint light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries throughout the matrix; very strongly acid; gradual wavy boundary.

2C1—63 to 70 inches; brownish yellow (10YR 6/6) loamy fine sand; single grain; loose; very strongly acid; clear wavy boundary.

2C2—70 to 83 inches; light yellowish brown (10YR 6/4) fine sand; single grain; loose; common fine to coarse distinct strata of brown (7.5YR 4/4) sand; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 40 to more than 60 inches

*Reaction:* Very strongly acid to slightly acid in the A and E horizons, except where lime has been applied, and very strongly acid or strongly acid in the B and C horizons

*A or Ap horizon:*

Color—hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4

Texture—loam, silt loam, or fine sandy loam

*E horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 3 to 6

Texture—sandy loam, fine sandy loam, very fine sandy loam, or silt loam

*BE or BA horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, or loam

*Bt horizon:*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8

Texture—clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray within the upper 20 inches of the horizon and iron accumulations in shades of red, yellow, and brown

*BC, CB, or 2BC horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8

Texture—fine sandy loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray, brown, or olive and iron accumulations in shades of red, yellow, and brown

*BCg, CBg, or 2BCg horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 0 to 2

Texture—fine sandy loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray, brown, and olive and iron accumulations in shades of red, yellow, and brown

*2C horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8

Texture—fine sand, loamy fine sand, fine sandy loam, or stratified layers of each

Redoximorphic features—iron depletions in shades of gray, brown, and olive and iron accumulations in shades of brown, yellow, or red

*2Cg horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 1 or 2; or neutral in hue and value of 4 to 7

Texture—fine sand, loamy fine sand, fine sandy loam, or stratified layers of each

Redoximorphic features—iron depletions in shades of gray, brown, and olive and iron accumulations in shades of brown, yellow, or red

## **Freest Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Marine sediments that are loamy in the upper part and clayey in the lower part

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridges, side slopes, and toeslopes

*Slope:* 2 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, active, thermic Aquic Paleudalfs

### **Commonly Associated Soils**

The Freest series is commonly associated with Boswell, Ichusa, Irvington, Lorman, Louin, Malbis, Petal, Ruston, Savannah, and Susquehanna soils.

- The moderately well drained Boswell soils have a red, clayey argillic horizon and are on ridges and side slopes.
- The somewhat poorly drained Ichusa soils have vertic properties and are on the lower ridges.
- The Irvington soils are in positions similar to those of the Freest soils.
- The moderately well drained Lorman soils have vertic properties and are on side slopes.
- The somewhat poorly drained Louin soils are in the lower positions.
- The well drained Malbis soils are in the slightly higher, more uniform positions.
- The Petal soils are in positions similar to those of the Freest soils but have a redder subsoil.

- The well drained Ruston soils are in the slightly higher ridge positions.
- The moderately well drained Savannah soils have a fine-loamy argillic horizon with a fragipan in the lower part and are on the slightly higher ridges and stream terraces.
- The Susquehanna soils are in a fine textural family and are in positions similar to those of the Freest soils.

### ***Typical Pedon***

Freest fine sandy loam, 2 to 5 percent slopes; in a wooded area about 8 miles northeast of Waynesboro; 2,200 feet east and 2,400 feet north of the southwest corner of sec. 35, T. 10 N., R. 6 W.; USGS Matherville topographic quadrangle; lat. 31 degrees 47 minutes 26.2 seconds N. and long. 88 degrees 33 minutes 40.1 seconds W.

Ap—0 to 7 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine and few medium and coarse roots; strongly acid; clear smooth boundary.

E—7 to 12 inches; light yellowish brown (10YR 6/4) fine sandy loam; weak medium subangular blocky structure; friable; many fine and few medium roots; strongly acid; clear wavy boundary.

Bt1—12 to 22 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; few distinct clay films on faces of peds; common medium distinct pale brown (10YR 6/3) and few fine distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine and medium roots; very strongly acid; gradual wavy boundary.

Bt2—22 to 31 inches; yellowish brown (10YR 5/6) clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common distinct clay films on faces of peds; few distinct light yellowish brown (10YR 6/4) seams of sandy clay loam along prisms that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide; few fine distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine roots; very strongly acid; gradual wavy boundary.

Bt3—31 to 41 inches; mixed 40 percent yellowish brown (10YR 5/8), 25 percent light brownish gray (10YR 6/2), 25 percent strong brown (7.5YR 5/8), and 10 percent red (2.5YR 4/6) clay loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm, slightly sticky and plastic; few very fine and fine quartz pebbles; common distinct clay films on faces of peds; few distinct light gray (10YR 6/1) seams of sandy clay loam along prisms that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide; few fine roots; very strongly acid; gradual wavy boundary.

Bt4—41 to 59 inches; mixed 30 percent strong brown (7.5YR 5/8), 30 percent light brownish gray (10YR 6/2), 30 percent yellowish brown (10YR 5/6), and 10 percent red (2.5YR 5/8) clay loam; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, slightly sticky and plastic; common distinct clay films on faces of peds; few distinct light gray (10YR 6/1) seams of sandy clay loam along prisms that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide; few fine roots; very strongly acid; gradual wavy boundary.

Btg—59 to 81 inches; light brownish gray (10YR 6/2) clay; moderate fine and medium subangular blocky structure; firm, plastic and sticky; common distinct clay films on faces of peds; many coarse prominent reddish yellow (7.5YR 6/8) and common medium and coarse prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

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*Content of concretions:* A few calcium carbonate nodules in the lower part of the Bt horizon in some pedons

*Reaction:* Very strongly acid or strongly acid in the A and E horizons and the upper part of the Bt horizon, except where lime has been applied, and very strongly acid to neutral in the lower part of the Bt horizon and in the Btg horizon

*A horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3

Texture—fine sandy loam

*Ap horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 2 or 3; or hue of 10YR, value of 6, and chroma of 3 or 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam

*Bt horizon, upper part:*

Color—hue of 10YR, value of 5 to 7, and chroma of 6 to 8; multicolored in shades of yellow, brown, or gray; or hue of 7.5YR, value of 5 or 6, and chroma of 6 to 8

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of yellow, brown, and red

*Bt horizon, lower part, and Btg horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 or 8; hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 to 2; or no dominant color and multicolored in shades of yellow, brown, gray, and red

Texture—clay loam or clay

Redoximorphic features—clay depletions in shades of brown, white, or gray; iron depletions in shades of gray; and iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; hue of 7.5YR, value of 6 or 7, and chroma of 6 to 8; or multicolored in shades of gray, red, yellow, and brown

Texture—clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## Harleston Series

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate

*Parent material:* Loamy and sandy, fluvial marine or stream deposits

*Landscape:* Coastal Plain

*Landform:* Terraces and uplands

*Landform position:* Planar and slightly convex areas

*Slope:* 0 to 2 percent

*Taxonomic classification:* Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults

### ***Commonly Associated Soils***

The Harleston series is commonly associated with Bibb, Bigbee, Dogue, Leaf, Prentiss, Quitman, Savannah, and Stough soils.

- The poorly drained Bibb soils do not have an argillic horizon and are in flood plains.
- The excessively drained Bigbee soils have a sandy control section and are on the slightly higher stream terraces.
- The Dogue soils have more clay than the Harleston soils and are in lower positions.
- The poorly drained Leaf soils are in the lower positions.
- The Prentiss soils are in positions similar to those of the Harleston soils but have a fragipan at a depth of about 24 inches.
- The somewhat poorly drained Quitman soils have a fine-loamy argillic horizon and are in the slightly lower positions.
- The moderately well drained Savannah soils have a fragipan in the lower argillic horizon and are on the higher terraces that are not subject to flooding.
- The somewhat poorly drained Stough soils have fragic properties and are in the slightly lower positions.

### ***Typical Pedon***

Harleston fine sandy loam, 0 to 2 percent slopes, rarely flooded; about 7 miles south-southwest of Waynesboro; 2,500 feet west and 2,000 feet south of the northeast corner of sec. 16, T. 7 N., R. 7 W.; USGS Clara topographic quadrangle; lat. 31 degrees 34 minutes 25.0 seconds N. and long. 88 degrees 41 minutes 55.0 seconds W.

- Ap1—0 to 4 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak medium and coarse granular structure; friable; many fine, medium, and coarse roots; very strongly acid; clear smooth boundary.
- Ap2—4 to 9 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak coarse subangular blocky structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear wavy boundary.
- Ap3—9 to 13 inches; brown (10YR 4/3) fine sandy loam; weak coarse subangular blocky structure; friable; many fine, common medium, and few coarse roots; common fine charcoal fragments; many fine and medium distinct light yellowish brown (10YR 6/4) coatings; very strongly acid; clear wavy boundary.
- Bt1—13 to 22 inches; brownish yellow (10YR 6/6) fine sandy loam; weak coarse subangular blocky structure; friable; common fine and medium roots; few faint clay films on faces of peds; few fine distinct white (10YR 8/1) pockets of clean sand; very strongly acid; gradual wavy boundary.
- Bt2—22 to 33 inches; brownish yellow (10YR 6/6) loam; weak coarse subangular blocky structure; friable; common fine roots; few faint clay films on faces of peds; few fine distinct white (10YR 8/1) pockets of clean sand; few fine iron-manganese concretions; few fine distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine faint light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Bt3—33 to 43 inches; brownish yellow (10YR 6/6) loam; moderate coarse subangular blocky structure; friable; common faint clay films on faces of peds; few fine faint pockets of clean sand; few fine and medium iron-manganese concretions; common fine distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common thin seams of fine sandy loam on faces of peds; very strongly acid; clear wavy boundary.
- Bt4—43 to 50 inches; brownish yellow (10YR 6/6) loam; weak very coarse prismatic structure parting to weak medium subangular blocky; friable; few faint clay films

on faces of peds; few fine pockets of clean sand; common medium distinct strong brown (7.5YR 5/6) and common coarse faint yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine, medium, and coarse masses of iron-manganese accumulations; many medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common thin seams of fine sandy loam on faces of peds; very strongly acid; gradual wavy boundary.

Bt5—50 to 68 inches; pale brown (10YR 6/3) loam; weak very coarse prismatic structure parting to weak medium subangular blocky; friable; few faint clay films on faces of peds; few fine pockets of clean sand; common fine, medium, and coarse iron-manganese concretions; many coarse prominent strong brown (7.5YR 5/6) and many coarse distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many coarse distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions on faces of peds with clear boundaries; common thin seams of fine sandy loam on faces of peds; very strongly acid; gradual wavy boundary.

Btg1—68 to 76 inches; light brownish gray (10YR 6/2) sandy clay loam; weak very coarse prismatic structure parting to weak medium subangular blocky; friable; few faint clay films on faces of peds; few fine pockets of clean sand; many coarse prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) and many coarse distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common thin seams of fine sandy loam on faces of peds; very strongly acid; gradual wavy boundary.

Btg2—76 to 90 inches; light brownish gray (10YR 6/2) sandy clay loam; weak very coarse prismatic structure parting to weak medium subangular blocky; friable; few faint clay films on faces of peds; few fine pockets of clean sand; many coarse prominent strong brown (7.5YR 5/6), common coarse yellowish brown (10YR 5/6), and many coarse distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common thin seams of fine sandy loam on faces of peds; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid, except the surface layer where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6

Texture—fine sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 to 8; or a mixed matrix in shades of yellow, brown, and gray

Texture—fine sandy loam or loam

Redoximorphic features (where present)—iron depletions in shades of gray and masses of iron accumulation in shades of brown, yellow, and red

*Btg horizon (where present):*

Color—hue of 10YR, value of 5 to 7, and chroma of 1 or 2

Texture—fine sandy loam, loam, or sandy clay loam

Redoximorphic features—masses of iron accumulation in shades of red, brown, or yellow

*BCg horizon (where present):*

Color—hue of 10YR, value of 5 to 8, and chroma of 1 or 2

Texture—fine sandy loam, loam, sandy clay loam, or clay loam

Redoximorphic features—masses of iron accumulation in shades of red, brown, or yellow

*C or Cg horizon (where present):*

Color—hue of 10YR, value of 5 to 8, and chroma of 1 to 6

Texture—fine sand, loamy fine sand, fine sandy loam, loam, sandy clay loam, or clay loam

Redoximorphic features—masses of iron accumulation in shades of red, brown, or yellow

## Heidel Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and shoulder slopes

*Slope:* 8 to 35 percent

*Taxonomic classification:* Coarse-loamy, siliceous, subactive, thermic Typic Paleudults

### Commonly Associated Soils

The Heidel series is commonly associated with Benndale, Boykin, Brantley, Lorman, Lucedale, McLaurin, Okeelala, Smithdale, and Wadley soils.

- The well drained Benndale soils have a brown subsoil and are on ridges and upper side slopes.
- The well drained Boykin soils have a sandy surface layer that is more than 20 inches thick and are in positions similar to those of the Heidel soils.
- The well drained Brantley soils have a fine argillic horizon and are in the lower positions.
- The moderately well drained Lorman soils have a fine argillic horizon with vertic properties and are on the lower side slopes.
- The dark red Lucedale soils are in broad, nearly level positions.
- The well drained McLaurin soils have a solum that is more than 60 inches thick and are on broad ridges.
- The well drained Okeelala soils have a fine-loamy argillic horizon and are on the lower slopes.
- The well drained Smithdale soils have a fine-loamy argillic horizon and are in positions similar to those of the Heidel soils.
- The Wadley soils are sandy, have a perched water table, and are in the lower positions.

### Typical Pedon

Heidel fine sandy loam, 15 to 35 percent slopes; in a wooded area about 7 miles north of Waynesboro; 2,500 feet west and 100 feet north of the southeast corner of sec. 36, T. 10 N., R. 8 W.; USGS Shubuta topographic quadrangle; lat. 31 degrees 47 minutes 0.5 seconds N. and long. 88 degrees 44 minutes 56.1 seconds W.

A—0 to 6 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many fine and medium and few coarse roots; few fine fragments of charcoal; strongly acid; clear wavy boundary.

EB—6 to 10 inches; reddish brown (5YR 4/4) loamy fine sand, weak coarse

subangular blocky structure; very friable; common fine and medium and few coarse roots; few fine fragments of charcoal; common fine distinct yellowish brown (10YR 5/4) coatings; very strongly acid; clear smooth boundary.

Bt1—10 to 24 inches; red (2.5YR 4/6) sandy loam; weak coarse subangular blocky structure; friable; common fine and few medium roots; few faint clay films on faces of peds; few fine fragments of charcoal; few fine prominent brownish yellow (10YR 6/6) streaks of clean sand; few fine distinct red (10R 4/8) spots of oxide coatings; very strongly acid; gradual wavy boundary.

Bt2—24 to 33 inches; red (2.5YR 4/8) sandy loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; few fine fragments of charcoal; few fragments of ironstone; few fine quartz pebbles; common medium prominent brownish yellow (10YR 6/6) streaks of clean sand; few fine distinct red (10R 4/8) oxide coatings; very strongly acid; gradual wavy boundary.

Bt3—33 to 45 inches; yellowish red (5YR 5/8) loam; weak coarse subangular blocky structure; very friable; sand grains coated and bridged with clay; few fine fragments of charcoal; few fragments of ironstone; few fine quartz pebbles; many medium prominent very pale brown (10YR 7/6) streaks of stripped sand grains; very strongly acid; gradual wavy boundary.

BC—45 to 73 inches; yellowish red (5YR 5/6) fine sandy loam; single grain; loose; few fragments of ironstone; few fine quartz pebbles; few fine distinct red (2.5YR 5/6) coatings of oxides; few fine distinct pale brown (10YR 6/3) stripped sand grains; very strongly acid; gradual wavy boundary.

C—73 to 80 inches; light red (2.5YR 6/6) fine sand; single grain; loose; few thin distinct red (2.5YR 4/6) lamellae; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 30 to 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—fine sandy loam

*E or EB horizon (where present):*

Color—hue of 5YR, value of 4 to 6, and chroma of 4 to 8

Texture—loamy fine sand or fine sandy loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 6 to 8

Texture—sandy loam or loam; a thin Bt1 horizon of sandy clay loam in some pedons

*BC horizon (where present):*

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—loamy fine sand or fine sandy loam

*C Horizon (where present):*

Color—hue of 2.5YR to 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—loamy fine sand, fine sand, or stratified layers of sand, fine sand, loamy fine sand, fine sandy loam, and sandy clay loam

## **Ichusa Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Parent material:* Clayey sediments

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Shoulder slopes and side slopes

*Slope:* 2 to 5 percent

*Taxonomic classification:* Fine, smectitic, thermic Aquic Dystruderts

### ***Commonly Associated Soils***

The Ichusa series is commonly associated with Boswell Freest, Louin, Leeper, Maytag, and Urbo soils.

- The Boswell soils have a reddish argillic horizon and are on ridgetops and side slopes at the higher elevations.
- The Freest soils are fine-loamy and are on ridgetops and side slopes at the higher elevations.
- The Louin soils have prominent gilgai relief and are on summits of ridges.
- The Leeper soils are non-acid, are subject to frequent flooding, and are on flood plains.
- The Maytag soils are on slopes similar to those of the Ichusa soils but are calcareous throughout.
- The Urbo soils are clayey and are on broad flood plains.

### ***Typical Pedon***

Ichusa silty clay loam, 2 to 5 percent slopes; about 11 miles northeast of Waynesboro; 500 feet south and 950 feet east of the northwest corner of sec. 25, T. 10 N., R. 6 W.; USGS Matherville topographic quadrangle; lat. 31 degrees 48 minutes 46 seconds N. and long. 88 degrees 32 minutes 48 seconds W.

Ap—0 to 2 inches; dark brown (10YR 4/3) silty clay loam; moderate fine and medium granular structure; friable, sticky and slightly plastic; many fine and medium roots; few worm channels; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation with clear boundaries in the matrix; strongly acid; clear smooth boundary.

Bt1—2 to 11 inches; yellowish brown (10YR 5/6) silty clay; moderate fine and medium subangular blocky structure; firm, sticky and plastic; few fine pores; common fine and few medium roots; few cracks up to 0.5 centimeter wide; common faint clay films on faces of peds and in pores; common pressure faces; common medium distinct yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Bt2—11 to 19 inches; yellowish brown (10YR 5/6) clay; moderate fine and medium angular blocky structure; firm, sticky and plastic; common fine and few medium roots; common faint clay films on faces of peds; common pressure faces; many medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; few medium distinct yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual diffuse boundary.

Btss1—19 to 30 inches; yellowish brown (10YR 5/6) clay; coarse wedge-shaped fragments parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few fine roots; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 4 to 7 inches wide and 0.5 to 1.5 inches deep; many medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium distinct red (2.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btss2—30 to 41 inches; yellowish brown (10YR 5/6) clay; moderate coarse and very

coarse wedge-shaped fragments parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 4 to 7 inches wide and 0.5 to 1.5 inches deep; many common distinct light brownish gray (2.5Y 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Bkss1—41 to 59 inches; yellowish brown (10YR 5/6) clay; moderate very coarse wedge-shaped fragments parting to strong fine and medium angular blocky structure; firm, very sticky and very plastic; few medium calcium carbonate nodules; many large intersecting slickensides with distinct polished and grooved surfaces; grooves are 4 to 7 inches wide and 0.5 to 1.5 inches deep; many common distinct light olive gray (5Y 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common fine distinct dark grayish brown (10YR 4/2) surface material along old cracks and some slickenside faces; neutral; gradual wavy boundary.

Bkss2—59 to 73 inches; light gray (10YR 6/1) clay; moderate very coarse wedge-shaped fragments parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common medium calcium carbonate nodules; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 4 to 7 inches wide and 0.5 to 1.5 inches deep; many medium distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine distinct dark grayish brown (10YR 4/2) surface material along old cracks and some slickenside faces; slightly alkaline; gradual wavy boundary.

BCKss—73 to 85 inches; brownish yellow (10YR 6/8) clay; moderate very coarse wedge-shaped fragments parting to very weak fine platy structure; very firm, very sticky and very plastic; common medium calcium carbonate nodules; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 4 to 7 inches wide and 0.5 to 1.5 inches deep; many medium and coarse distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine distinct dark grayish brown (10YR 4/2) surface material along old cracks and some slickenside faces; slightly alkaline.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to alkaline soil material:* 30 to 60 inches

*Reaction:* Very strongly acid or strongly acid in the A, Bt, and Btss horizons, except for the surface layer where lime has been applied, and slightly acid to moderately alkaline in the Bkss horizon

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—silty clay loam

*Bt and Btss horizons:*

Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, yellow, gray, and brown

Texture—silty clay or clay

Redoximorphic features—common or many iron depletions in shades of gray and masses of iron accumulation in shades of yellow, red, and brown

*Bkss and BCKss horizons:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 to 6; or no dominant matrix color and multicolored in shades of brown, olive, gray, and yellow

Texture—clay

Redoximorphic features—few to many iron depletions in shades of gray and masses of iron accumulation in shades of yellow, red, and brown

## Irvington Series

*Depth class:* Deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulders

*Slope:* 2 to 5 percent

*Taxonomic classification:* Fine-loamy, siliceous, subactive, thermic Plinthic Fragiudults

### **Commonly Associated Soils**

The Irvington series is commonly associated with Boykin, Freest, Lorman, McLaurin, Malbis, Ruston, Smithdale, and Wadley soils.

- The Boykin soils have a thick, sandy upper part and are in positions similar to those of the Irvington soils.
- The Freest soils are clayey in the lower part of the subsoil but do not have a fragipan. They are in the slightly lower positions.
- The clayey Lorman soils are on side slopes.
- The well drained McLaurin and Ruston soils have a red subsoil and are in positions similar to those of the Irvington soils.
- The well drained Malbis soils do not have a fragipan in the lower part of the subsoil and are on the broader, slightly lower ridges.
- The well drained Smithdale soils have a red subsoil and are on side slopes.
- The Wadley soils are sandy, have a perched water table, and are in convex positions similar to those of the Irvington soils.

### **Typical Pedon**

Irvington very fine sandy loam, 2 to 5 percent slopes; about 14 miles west of Waynesboro on U.S. highway 84; about 2,500 feet west and 2,000 feet north of the southeast corner of sec. 35, T. 9 N., R. 9 W.; USGS Whistler topographic quadrangle; lat. 31 degrees 42 minutes 4.7 seconds N. and long. 88 degrees 52 minutes 2.3 seconds W.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) very fine sandy loam; weak fine granular structure; friable; many fine, common medium, and few coarse roots; strongly acid; clear wavy boundary.

E—6 to 13 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; friable; common fine and few medium roots; strongly acid; gradual wavy boundary.

Bt—13 to 19 inches; yellowish brown (10YR 5/6) loam; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; common fine and few medium roots; very strongly acid; gradual wavy boundary.

Btx—19 to 25 inches; yellowish brown (10YR 5/6) loam; weak very coarse prismatic structure parting to moderate medium subangular blocky; firm, compact and brittle in about 25 percent of the mass; few fine roots; few fine pores; common faint clay films on faces of peds; few thin seams of light yellowish brown (10YR 6/4) fine sandy loam between prisms; common medium and coarse prominent brown (7.5YR 5/4) and many medium and coarse distinct yellow (10YR 7/6) irregularly

shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btxv1—25 to 41 inches; strong brown (7.5YR 5/6) loam; weak very coarse prismatic structure parting to weak coarse platy that breaks down to moderate medium and coarse subangular blocky; very firm, compact and brittle in about 70 percent of mass; few fine roots; few fine pores; common faint clay films on faces of peds; common thin ( $\frac{1}{4}$  to  $\frac{1}{2}$  inch thick) seams of light yellowish brown (10YR 6/4) fine sandy loam between prisms; common medium prominent light red (2.5YR 6/8) and many coarse prominent light yellowish brown (10YR 6/3) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; few fine plinthite nodules; few fine and medium iron-manganese concretions; very strongly acid; gradual wavy boundary.

Btxv2—41 to 59 inches; strong brown (7.5YR 5/8) loam; weak very coarse prismatic structure parting to weak coarse platy that breaks down to moderate medium and coarse subangular blocky; very firm, compact and brittle in about 70 percent of mass; common faint clay films on faces of faces of peds; common thin ( $\frac{1}{4}$  to  $\frac{1}{2}$  inch thick) seams of light yellowish brown (10YR 6/4) fine sandy loam between prisms; few fine pores; common medium prominent light red (2.5YR 6/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine and medium prominent light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; common fine and medium plinthite nodules (5 percent); few fine iron concretions; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

Btxv3—59 to 76 inches; yellowish brown (10YR 5/6) loam; weak very coarse prismatic structure parting to weak coarse platy that breaks down to moderate medium and coarse subangular blocky; very firm, compact and brittle in about 70 percent of mass; common faint clay films on faces of faces of peds; common thin ( $\frac{1}{4}$  to  $\frac{1}{2}$  inch thick) seams of light yellowish brown (10YR 6/4) fine sandy loam between prisms; common medium prominent strong brown (7.5YR 5/8) and many fine to coarse prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine to coarse distinct pale brown (10YR 6/3) clay depletions along seams and prism faces with clear boundaries; common fine and medium prominent light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; common fine and medium plinthite nodules (7 percent); few fine iron concretions; few fine quartz pebbles; very strongly acid; gradual wavy boundary.

2BC—76 to 81 inches; multicolored clay loam, 40 percent pale brown (10YR 6/3), 30 percent red (2.5YR 4/6), and 30 percent brownish yellow (10YR 6/8); weak very coarse prismatic structure parting to weak medium platy rock; firm; few fine pores; seams of gray (2.5Y 6/1) fine sandy loam between prisms; the matrix color, iron accumulations, and iron depletions are relict redoximorphic features; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 60 to more than 80 inches

*Depth to contrasting soil material:* 19 to 35 inches to a fragipan, which has gray vertical seams that form a roughly polygonal pattern of prisms. The matrix of the prisms is firm or very firm when dry and brittle when moist in the major part of the fragipan.

*Reaction:* Very strongly acid or strongly acid in all horizons, except where lime has been applied

*Ap or A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4; or hue of 10YR, value of 5, and chroma of 3

## Soil Survey of Wayne County, Mississippi

Content of ironstone nodules—0 to 10 percent

Texture—very fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—loam or fine sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or loam

*Btx or Btxv horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8; or multicolored in shades of red, yellow, gray, and brown

Content, by volume, of plinthite—5 to 10 percent

Content, by volume, of ironstone nodules—3 to 5 percent

Texture—sandy clay loam or loam

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*2Bt horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 6 or 7, and chroma of 1 or 2; or multicolored in shades of red, yellow, gray, and brown

Texture—clay or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*2BC horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 6 to 8; multicolored in shades of red, yellow, gray, and brown; or a gray matrix

Texture—clay or clay loam

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## Iuka Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Natural levees and meander belts

*Slope:* 0 to 1 percent

*Taxonomic classification:* Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents

### Commonly Associated Soils

The Iuka series is commonly associated with Annemaine, Bibb, Bigbee, Cahaba, Mantachie, Quitman, Stough, Una, and Urbo soils.

- The moderately well drained Annemaine soils have a clayey argillic horizon and are on stream terraces.
- The poorly drained Bibb soils are in the lower positions on the flood plains.
- The excessively well drained Bigbee soils are sandy and are on stream terraces.
- The well drained Cahaba soils have a fine-loamy argillic horizon and are on stream terraces.

- The somewhat poorly drained Mantachie soils are in the lower positions of stream bottoms.
- The somewhat poorly drained Quitman soils have a fine-loamy argillic horizon and are on low stream terraces.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon and are on low stream terraces.
- The clayey Una and Urbo soils are on broad flood plains.

***Typical Pedon***

luka fine sandy loam, in an area of Bibb-luka complex, 0 to 1 percent slopes, frequently flooded; in a wooded area about 16 miles southwest of Waynesboro; 2,200 feet north and 1,950 feet west of the southeast corner of sec. 36, T. 7 N., R. 9 W.; USGS Water Oak topographic quadrangle; lat. 31 degrees 31 minutes 38.1 seconds N. and long. 88 degrees 50 minutes 53.4 seconds W.

- A1—0 to 2 inches; brown (10YR 4/3) fine sandy loam; few fine streaks of white (10YR 8/2) clean sand; weak fine granular structure; very friable; many fine and common medium and coarse roots; very strongly acid; clear smooth boundary.
- A2—2 to 8 inches; brown (10YR 5/3) fine sandy loam; common fine distinct very pale brown (10YR 7/3) streaks and pockets of clean sand; weak coarse subangular blocky structure; very friable; many fine and medium and common coarse roots; few fine pores; very strongly acid; clear wavy boundary.
- C1—8 to 24 inches; light yellowish brown (10YR 6/4) fine sandy loam; few fine distinct streaks of light brownish gray (10YR 6/2) clean sand; weak coarse subangular blocky structure; very friable; many fine, common medium, and few coarse roots; few fine pores; few fine distinct very pale brown (10YR 7/3) bedding planes that are about 1/2 inch thick; few fine distinct dark brown (10YR 3/3) organic bodies along bedding planes; very strongly acid; clear irregular boundary.
- C2—24 to 34 inches; very pale brown (10YR 7/4) loamy fine sand; massive; very friable; common fine and few medium roots; few fine distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries within the matrix; few fine distinct yellowish brown (10YR 5/4) and few fine distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; few fine iron-manganese concretions throughout; very strongly acid; gradual wavy boundary.
- C3—34 to 40 inches; very pale brown (10YR 7/3) loamy fine sand; massive; loose; few fine roots; many medium distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries within the matrix; many medium distinct light yellowish brown (10YR 6/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; few fine iron-manganese concretions throughout; very strongly acid; gradual wavy boundary.
- C4—40 to 55 inches; light yellowish brown (10YR 6/4) loamy fine sand with common thin strata of fine sand; massive; loose; few fine roots; common fine to coarse distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries within the matrix; few fine distinct very pale brown (10YR 7/3) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- C5—55 to 64 inches; 30 percent light yellowish brown (10YR 6/4), 30 percent very pale brown (10YR 7/3), 25 percent white (10YR 8/2), and 15 percent reddish yellow (7.5YR 6/8) fine sand; massive; loose; the yellowish and brownish areas are iron accumulations, and the white areas are iron depletions; few fine dark brown (10YR 3/3) soft organic bodies; very strongly acid; gradual wavy boundary.
- C6—64 to 82 inches; 40 percent light yellowish brown (10YR 6/4), 25 percent very pale brown (10YR 7/3), 20 percent white (10YR 8/2), and 15 percent brownish

yellow (10YR 6/6) fine sand; massive; loose; the yellowish and brownish areas are iron accumulations, and the white areas are iron depletions; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 15 to 25 inches

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—fine sandy loam

*C horizon:*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 3 to 8; or multicolored in shades of brown, yellow, and gray

Texture—fine sandy loam, sandy loam, or loamy fine sand; loamy sand and fine sand below a depth of 40 inches; and none to common sand strata below a depth of 36 inches

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

*Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 6 to 8, and chroma of 1 or 2; or multicolored in shades of gray, brown, and yellow

Texture—fine sandy loam, sandy loam, loamy fine sand, loamy sand, and fine sand

Redoximorphic features (where present)—iron accumulations in shades of yellow, brown, and red

## **Jena Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Natural levees and meander belts

*Slope:* 0 to 3 percent

*Taxonomic classification:* Coarse-loamy, siliceous, active, thermic Fluventic  
Dystrudepts

### ***Commonly Associated Soils***

The Jena series is commonly associated with Alaga, Bibb, Cahaba, Leaf, Mantachie, Una, and Urbo soils.

- The excessively well drained Alaga soils are sandy and are on stream terraces in the higher positions.
- The poorly drained Bibb soils are in the lower positions on the flood plains.
- The well drained Cahaba soils are fine-loamy and are in the higher positions.
- The poorly drained Leaf soils are in the lower positions.
- The somewhat poorly drained Mantachie soils are fine-loamy and are in the lower positions.
- The clayey Una and Urbo soils are on broad flood plains.

### ***Typical Pedon***

Jena fine sandy loam, occasionally flooded; in a wooded area about 4 miles west of Taylorsville in Smith County, Mississippi; 2,250 feet east and 850 feet north of the southwest corner of sec. 16, T. 10 N., R. 15 W.; USGS Mize topographic quadrangle; lat. 31 degrees 49 minutes 46 seconds N. and long. 89 degrees 30 minutes 47 seconds W.

- Ap—0 to 6 inches; dark brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine and common medium roots; very strongly acid; clear smooth boundary.
- Bw1—6 to 27 inches; dark yellowish brown (10YR 4/4) loam; weak medium subangular blocky structure; friable; common fine and medium roots; very strongly acid; clear wavy boundary.
- Bw2—27 to 45 inches; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; very strongly acid; gradual wavy boundary.
- C1—45 to 53 inches; yellowish brown (10YR 5/6) sandy loam; massive; very friable; few fine roots; few fine distinct gray (10YR 6/1) iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- C2—53 to 81 inches; 40 percent light yellowish brown (10YR 6/4), 30 percent yellowish brown (10YR 5/6), and 30 percent light brownish gray (10YR 6/2) sandy loam; massive; very friable; few 1 inch thick strata of loamy sand; the yellowish brown areas are iron accumulations, and the gray areas are iron depletions; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 30 to 65 inches

*Depth to bedrock:* More than 80 inches

*Other features:* The content of clay in the particle-size control section is less than 18 percent.

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4

Texture—fine sandy loam

*Bw horizon:*

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6

Texture—fine sandy loam, sandy loam, or loam

*C horizon:*

Color—hue of 10YR or 7.5YR, value of 4 to 6, and chroma of 3 to 6; or multicolored in shades of brown and gray

Texture—fine sandy loam, sandy loam, or loamy fine sand and, below a depth of 40 inches, none to common sand strata

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

## **Latonia Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy and sandy alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Adjacent to major streams

*Slope:* 0 to 2 percent

*Taxonomic classification:* Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults

### ***Commonly Associated Soils***

The Latonia series is commonly associated with Annemaine, Bigbee, Cahaba, Dogue, and Stough soils.

- The moderately well drained Annemaine soils are clayey and are in the slightly lower positions.
- The excessively drained Bigbee soils are sandy and are in positions similar to those of the Latonia soils or slightly higher.
- The well drained Cahaba soils are in positions similar to those of the Latonia soils but have a red subsoil with more clay.
- The Dogue soils have more clay than the Latonia soils and are in the lower elevations, closer to the streams.
- The somewhat poorly drained Stough soils are in the lower positions and are subject to more frequent flooding.

### ***Typical Pedon***

Latonia loamy sand, 0 to 2 percent slopes, rarely flooded; in a wooded area about 14.5 miles south-southeast of Waynesboro; 2,100 feet west and 75 feet north of the southeast corner of sec. 17, T. 6 N., R. 6 W.; USGS Knobtown topographic quadrangle; lat. 31 degrees 28 minutes 41.2 seconds N. and long. 88 degrees 36 minutes 38.5 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/3) loamy sand; weak fine granular structure; very friable; many fine and few medium and coarse roots; strongly acid; clear smooth boundary.

E—4 to 8 inches; yellowish brown (10YR 5/4) loamy sand; weak coarse subangular blocky structure; very friable; common fine and few medium roots; common fine distinct dark grayish brown (10YR 4/3) material from the A horizon in old root channels and worm holes; very strongly acid; clear smooth boundary.

Bt1—8 to 15 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and few medium roots; few faint clay bridgings on sand grains; common fine distinct dark grayish brown (10YR 4/3) material from the A horizon in old root channels and worm holes; very strongly acid; gradual wavy boundary.

Bt2—15 to 25 inches; yellowish brown (10YR 5/8) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and few medium roots; few faint clay bridgings on sand grains; few medium prominent yellowish red (5YR 5/6) masses of iron accumulation that are relic redoximorphic features; very strongly acid; gradual wavy boundary.

Bt3—25 to 32 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse subangular blocky structure; very friable; few fine roots; few faint clay bridgings on sand grains; few medium distinct strong brown (7.5YR 5/6) masses of iron accumulation that are relic redoximorphic features; common medium distinct light gray (10YR 7/2) spots of clean sand; very strongly acid; gradual wavy boundary.

2C1—32 to 43 inches; brownish yellow (10YR 6/6) fine sand; single grain; loose; few fine roots; many fine distinct light gray (10YR 7/2) strata of clean sand grains; common fine distinct yellowish brown (10YR 5/6) streaks; very strongly acid; gradual wavy boundary.

2C2—43 to 61 inches; very pale brown (10YR 7/3) fine sand; single grain; loose; few fine roots; common medium prominent strong brown (7.5YR 5/6) and common fine prominent yellowish red (5YR 5/6) strata; very strongly acid; gradual wavy boundary.

2C3—61 to 81 inches; very pale brown (10YR 8/3) fine sand; structureless; loose; common fine prominent strong brown (7.5YR 5/6) strata; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 24 to 43 inches

*Reaction:* Very strongly acid or strongly acid, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—loamy sand

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 4

Texture—loamy fine sand or loamy sand

*BE horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 4 to 6

Texture—fine sandy loam or sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—fine sandy loam, loam, sandy clay loam, or clay loam

*BC or CB horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 6 to 8

Texture—fine sandy loam or loamy fine sand

Redoximorphic features (where present)—iron accumulations that are relic redoximorphic features in shades of red, yellow, and brown

*C or 2C horizon:*

Color—hue of 7.5YR or 10YR, value of 4 to 8, and chroma of 2 to 8

Texture—fine sand or sand or stratified sand, loamy sand, sandy loam, and fine sandy loam

## **Leaf Series**

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Permeability:* Very slow

*Parent material:* Clayey alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Backswamps

*Slope:* 0 to 1 percent

*Taxonomic classification:* Fine, mixed, active, thermic Typic Albaquults

### ***Commonly Associated Soils***

The Leaf series is commonly associated with Annemaine, Harleston, Jena, Lorman, Smithdale, and Stough soils.

- The moderately well drained Annemaine soils are on the higher terraces.
- The moderately well drained Harleston soils have a brownish, loamy argillic horizon and are in the higher positions.

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- The well drained Jena soils have a brownish cambic horizon and are on natural levees of flood plains.
- The moderately well drained Lorman soils have a reddish argillic horizon and are on side slopes.
- The well drained Smithdale soils have a reddish, fine-loamy argillic horizon and are on side slopes.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon and are in the slightly higher positions.

### ***Typical Pedon***

Leaf silt loam, 0 to 2 percent, frequently flooded; about 9 miles southwest of Waynesboro in Wayne County; 1,425 feet west and 800 feet north of the southeast corner of sec. 21, T. 7 N., R. 7 W.; USGS Clara topographic quadrangle; lat. 31 degrees 33 minutes 12.1 seconds N. and long. 88 degrees 41 minutes 40.0 seconds W.

A—0 to 2 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; friable; many very fine and fine, common medium, and few coarse roots; very strongly acid; clear smooth boundary.

Eg—2 to 7 inches; light brownish gray (10YR 6/2) silt loam; weak medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; few fine pores; few fine and medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; abrupt wavy boundary.

Btg1—7 to 13 inches; grayish brown (10YR 5/2) silty clay; moderate very coarse prismatic structure parting to moderate medium subangular blocky; firm; common fine and few medium roots; few fine pores; few faint clay films on faces of peds; few faint light brownish gray (10YR 6/2) silt coatings on faces of prisms; few medium cylindrical krotovinas filled with light brownish gray (10YR 6/2) silt loam (Eg material); many medium distinct dark yellowish brown (10YR 4/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Btg2—13 to 23 inches; grayish brown (10YR 5/2) clay; moderate very coarse prismatic structure parting to moderate medium subangular blocky; firm, plastic and slightly sticky; few faint clay films on faces of peds and in pores; few fine roots; few fine pores; few faint light brownish gray (10YR 6/2) silt coatings on faces of prisms; few pressure faces; few medium cylindrical krotovinas filled with light brownish gray (10YR 6/2) silt loam (Eg material); many medium and coarse prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Btg3—23 to 36 inches; light gray (10YR 6/1) clay; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm, plastic and slightly sticky; few faint clay films on faces of peds and in pores; few fine roots; few very fine pores; few faint light brownish gray (10YR 6/2) silt coatings on faces of prisms; few pressure faces; few medium cylindrical krotovinas filled with light brownish gray (10YR 6/2) silt loam (Eg material); many medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Btg4—36 to 49 inches; light brownish gray (10YR 6/2) clay; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm, plastic and slightly sticky; common distinct clay films on pressure faces and prism faces; few very fine pores; few faint light brownish gray (10YR 6/2) silt coatings on faces of prisms; few pressure faces; many medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

BCg—49 to 73 inches; light brownish gray (2.5Y 6/2) clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; firm, plastic and sticky; common distinct grayish brown (10YR 5/2) clay films on prism faces; few pressure faces; few fine manganese concretions; many medium prominent strong brown (7.5YR 5/8) and common fine prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Cg—73 to 81 inches; light gray (10YR 6/1) clay loam; massive; firm, plastic and slightly sticky; many coarse prominent brownish yellow (10YR 6/6) and few fine prominent strong brown (7.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid, except where lime has been applied

*A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture—silt loam

*Eg horizon:*

Color—hue of 10YR, value of 5 or 6, and chroma of 1 or 2; or neutral in hue and value of 5 or 6

Texture—silt loam or very fine sandy loam

Redoximorphic features (where present)—iron accumulations in shades of brown

*Btg horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or neutral in hue and value of 5 or 6

Texture—silty clay or clay

Redoximorphic features—few to many iron accumulations in shades of red, yellow, and brown; none to many concretions of iron and manganese

*BCg or Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; or neutral in hue and value of 5 or 6

Texture—sandy loam, sandy clay loam, loam, or clay loam

Redoximorphic features (where present)—few to many iron accumulations in shades of yellow and brown; none to many concretions of iron and manganese

## **Leeper Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Parent material:* Clayey alluvium

*Landscape:* Blackland Prairie

*Landform:* Flood plains

*Landform position:* Nearly level areas along streams

*Slope:* 0 to 1 percent

*Flooding:* Brief, several times each year, mainly during winter and spring

*Taxonomic classification:* Fine, smectitic, nonacid, thermic Vertic Epiaquepts

### ***Commonly Associated Soils***

The Leeper series is commonly associated with Brantley, Ichusa, Louin, Maytag, Okeelala, Sumter, and Urbo soils.

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- The Brantley, Maytag, Okeelala, and Sumter soils are on uplands adjacent to areas of the Leeper soils and are not subject to flooding.
- The somewhat poorly drained Ichusa soils are in upland positions.
- The somewhat poorly drained Louin soils are in the higher, terrace positions.
- The clayey Urbo soils are on broad flood plains.

### ***Typical Pedon***

Leeper silty clay loam, 0 to 1 percent slopes, frequently flooded; about 5 miles southeast of Melvin in Choctaw County, Alabama; 300 feet north and 400 feet east of the southwest corner of sec. 5, T. 10 N., R. 4 W.

- Ap—0 to 4 inches; very dark grayish brown (10YR 3/2) silty clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; slightly alkaline; abrupt smooth boundary.
- Bw—4 to 12 inches; dark brown (10YR 4/3) clay loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; common fine and few medium roots; few medium distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; few medium faint dark gray (10YR 4/1) iron depletions; slightly alkaline; clear wavy boundary.
- Bg1—12 to 21 inches; dark grayish brown (2.5Y 4/2) clay; moderate medium subangular blocky structure; firm; few fine roots; few pressure faces; few faint very dark grayish brown (10YR 3/2) organic stains in root channels and on vertical faces of peds; few medium distinct very dark brown (10YR 2/2) stains (iron and manganese oxides) on faces of peds; few fine distinct dark yellowish brown (10YR 3/4) masses of iron accumulation; slightly alkaline; clear wavy boundary.
- Bg2—21 to 30 inches; dark gray (2.5Y 4/1) silty clay; moderate medium subangular blocky structure; firm; few pressure faces; common medium distinct very dark brown (10YR 2/2) stains (iron and manganese oxides) on faces of peds; common coarse prominent dark yellowish brown (10YR 3/4) and few medium prominent yellowish brown (10YR 5/4) masses of iron accumulation; slightly alkaline; clear wavy boundary.
- Bssg—30 to 45 inches; gray (10YR 5/1) clay; weak coarse angular blocky structure; firm; few pressure faces; few large intersecting slickensides that have faintly grooved surfaces; common medium distinct very dark brown (10YR 2/2) stains (iron and manganese oxides) on faces of peds; many coarse distinct dark yellowish brown (10YR 4/4) and common coarse prominent strong brown (7.5YR 5/8) masses of iron accumulation; slightly alkaline; gradual wavy boundary.
- C—45 to 60 inches; light olive brown (2.5Y 5/4) clay; massive; firm; few pressure faces; common large intersecting slickensides that have distinctly grooved surfaces; common medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; common medium distinct grayish brown (2.5Y 5/2) iron depletions; slightly alkaline.

### ***Range in Characteristics***

*Thickness of the solum:* 20 to more than 60 inches

*Reaction:* Slightly acid to moderately alkaline throughout

*Other features:* Some pedons near stream channels have an overwash of coarser materials. The layer of overwash is less than 10 inches thick.

*A or Ap horizon:*

Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 or 3

Texture—silty clay loam

*Bw horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3; or no dominant matrix color and multicolored in shades of brown and gray

Redoximorphic features—few to many redoximorphic accumulations in shades of brown and redoximorphic depletions in shades of gray

Texture—clay loam, silty clay, or clay

*Bg horizon:*

Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2

Redoximorphic features—few to many redoximorphic accumulations in shades of brown

Texture—silty clay or clay

*Bssg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Redoximorphic features—common or many redoximorphic accumulations in shades of brown or red

Texture—silty clay or clay

*C horizon:*

Color—hue of 2.5Y or 5Y, value of 4 to 6, and chroma of 3 or 4

Redoximorphic features—common or many redoximorphic accumulations in shades of brown and redoximorphic depletions in shades of gray

Texture—clay loam, silty clay loam, silty clay, or clay

## **Lorman Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Very slow

*Parent material:* Clayey sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Sides slopes

*Slope:* 5 to 15 percent

*Taxonomic classification:* Fine, smectitic, thermic Chromic Vertic Hapludalfs

### **Commonly Associated Soils**

The Lorman series is commonly associated with Benndale, Freest, Heidel, Irvington, Leaf, Malbis, Petal, Prim, Ruston, Smithdale, Suggsville, Susquehanna, and Watsonia soils.

- The well drained Benndale soils have a coarse-loamy argillic horizon and are on ridges and side slopes.
- The fine-loamy Freest soils are in the higher positions on shorter slopes than the Lorman soils.
- The well drained Heidel soils have a coarse-loamy argillic horizon and are on side slopes.
- The Irvington soils are more dissected than the Lorman soils and are in higher positions.
- The poorly drained Leaf soils are in low positions on terraces.
- The well drained Malbis soils are on the slightly higher, more uniform slopes.
- The Petal soils are in the slightly lower positions and on upper side slopes.
- The Prim soils are shallow to bedrock and are on upper side slopes.
- The well drained Ruston soils are in the higher ridgetop positions.
- The well drained Smithdale soils have a fine-loamy argillic horizon and are on side slopes.
- The well drained Suggsville soils are in the higher positions and are underlain by chalk.

- The somewhat poorly drained Susquehanna soils have vertic properties and are on ridges and lower slopes.
- The Watsonia soils are shallow to chalk and are on ridges and upper side slopes.

***Typical Pedon***

Lorman fine sandy loam, 8 to 15 percent slopes; about 11 miles south of Waynesboro; 1,850 feet east and 1,850 feet north of the southwest corner of sec. 16, T. 6 N., R. 7 W.; USGS Piave topographic quadrangle; lat. 31 degrees 28 minutes 59.6 seconds N. and long. 88 degrees 42 minutes 2.4 seconds W.

- Ap—0 to 3 inches; dark gray (10YR 4/1) fine sandy loam; weak fine and medium granular structure; friable; many fine and very fine and common medium and coarse roots; very strongly acid; clear smooth boundary.
- E—3 to 9 inches; light yellowish brown (10YR 6/4) fine sandy loam; weak fine and medium subangular blocky structure; friable; many fine and common medium roots; very strongly acid; clear wavy boundary.
- BE—9 to 12 inches; yellowish brown (10YR 5/4) loam; weak fine and medium subangular blocky structure; friable; many fine and few medium roots; few medium distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bt1—12 to 18 inches; yellowish red (5YR 5/8) clay; strong fine and medium subangular blocky structure; firm, slightly sticky and slightly plastic; common fine and very fine and few medium roots; many distinct (5YR 5/6) clay films on faces of peds; common medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bt2—18 to 23 inches; red (2.5YR 5/6) clay; strong fine and medium angular and subangular blocky structure; firm, sticky and plastic; few fine and very fine roots; many distinct (5YR 5/6) clay films on faces of peds; few distinct pressure faces on peds; many medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; many fine and medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Btss—23 to 35 inches; clay, light brownish gray (10YR 6/2) exterior and red (2.5YR 5/6) interior; wedge-shaped aggregates parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few fine roots; many distinct (5YR 5/6) clay films on faces of peds; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of 1/4 to 1/2 inch; many medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; many fine and medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Btssg1—35 to 47 inches; light olive gray (5Y 6/2) silty clay; wedge-shaped aggregates parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few very fine roots; many faint clay films on faces of peds; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of 1/4 to 1/2 inch; common medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium prominent red (2.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

- Btssg2**—47 to 54 inches; light olive gray (5Y 6/2) clay loam; wedge-shaped aggregates parting to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few very fine roots; common faint clay films on faces of peds; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of  $\frac{1}{4}$  to  $\frac{1}{2}$  inch; common medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; common medium prominent red (2.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- BC**—54 to 67 inches; light brownish gray (2.5Y 6/2) silty clay loam; moderate fine and medium subangular blocky structure; firm, slightly sticky and slightly plastic; common medium prominent red (2.5YR 4/6) and strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Cg1**—67 to 73 inches; light brownish gray (2.5Y 6/2) silty clay loam; massive; firm, slightly sticky and slightly plastic; many medium prominent strong brown (7.5YR 5/6) and few medium prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Cg2**—73 to 81 inches; light brownish gray (10YR 6/2) stratified layers of clay loam, loam, and sandy loam; massive; friable; many medium prominent strong brown (7.5YR 5/6) and few medium prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 40 to 60 inches

*Reaction:* Very strongly acid or strongly acid in the A and Bt horizons, except where lime has been applied, and very strongly acid to mildly alkaline in the BC and C horizons

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—fine sandy loam or sandy loam

*BE horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 6

Texture—fine sandy loam or loam

Redoximorphic features—iron accumulations in shades of brown and yellow

*Bt horizon:*

Color—hue of 5YR or 2.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of brown and yellow

*Btss horizon:*

Color—hue of 2.5YR to 5Y, value of 4 to 6, and chroma of 2 to 8

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*Btssg horizon:*

Color—hue of 2.5YR to 5Y, value of 5 or 6, and chroma of 1 or 2

*BC horizon (where present):*

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 to 2

Texture—silty clay loam or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Texture—silty clay loam, clay loam, loam, sandy loam, or stratified layers

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Louin Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Parent material:* Clayey sediments

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Flat or slightly concave slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine, smectitic, thermic Aquic Dystruderts

### ***Commonly Associated Soils***

The Louin series is commonly associated with Boswell, Freest, Ichusa, Leeper, and Maytag soils.

- The Boswell soils have a reddish argillic horizon and are on ridges and side slopes at the higher elevations.
- The Freest soils are fine-loamy and are on ridges and side slopes at the higher elevations.
- The Ichusa soils do not have prominent gilgai and are on adjacent ridge shoulders and ridges.
- The Leeper soils are on flood plains and are subject to frequent flooding.
- The Maytag soils are calcareous throughout and are on ridges at the slightly higher elevations.

### ***Typical Pedon***

Louin silty clay, 0 to 2 percent slopes; about 10 miles northeast of Waynesboro; 2,300 feet east and 2,350 feet north of the southwest corner of sec. 22, T. 10 N., R. 6 E.; USGS Matherville topographic quadrangle; lat. 88 degrees 34 minutes 26 seconds N. and long. 31 degrees 49 minutes 15 seconds W.

A1—0 to 1 inch; dark brown (10YR 4/3) silty clay; weak fine granular structure; firm, slightly sticky and slightly plastic; many fine and medium roots; extremely acid; clear smooth boundary.

A2—1 to 3 inches; brown (10YR 5/3) silty clay loam; weak fine and medium blocky structure; firm, sticky and plastic; many fine, medium, and coarse roots; extremely acid; clear wavy boundary.

BA—3 to 6 inches; yellowish brown (10YR 5/4) silty clay; moderate medium subangular blocky structure; firm, very sticky and very plastic; many fine, medium, and coarse roots; extremely acid; gradual wavy boundary.

Bt—6 to 11 inches; yellowish brown (10YR 5/6) silty clay; moderate medium and coarse angular and subangular blocky structure; firm, very sticky and very plastic; many fine and medium roots; common pressure faces; common faint clay

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films on faces of peds; common pressure faces; many fine and medium distinct irregularly shaped pale brown (10YR 6/3) iron depletions with clear boundaries within the matrix; common fine prominent yellowish red (5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; few fine concretions of iron and manganese; very strongly acid; gradual wavy boundary.

Btss1—11 to 25 inches; yellowish brown (10YR 5/6) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common fine and medium roots; common faint clay films on faces of peds; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; many fine, medium, and coarse distinct irregularly shaped light brownish gray (10YR 6/2) iron depletions with clear boundaries within the matrix and on faces of peds; common fine and medium distinct irregularly shaped strong brown (7.5YR 5/6) masses of iron accumulation with sharp boundaries around roots and in pores; few fine distinct irregularly shaped yellowish red (5YR 5/6) masses of iron accumulation with sharp boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btss2—25 to 41 inches; yellowish brown (10YR 5/6) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few fine roots; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; common fine, medium, and coarse distinct irregularly shaped light gray (10YR 6/1) iron depletions with clear boundaries in the matrix; common fine and medium distinct rounded strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Bss1—41 to 54 inches; light olive brown (2.5Y 5/6) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; few fine and medium irregularly shaped light gray (10YR 6/1) iron depletions with clear boundaries in the matrix; few fine concretions of iron and manganese; slightly acid; gradual wavy boundary.

Bss2—54 to 60 inches; light olive brown (2.5Y 5/6) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; few fine and medium irregularly shaped light gray (10YR 6/1) iron depletions with clear boundaries in the matrix; few fine concretions of iron and manganese; neutral; gradual wavy boundary.

Bss3—60 to 72 inches; yellowish brown (10YR 5/6) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; common fine and medium distinct irregularly shaped light brownish gray (10YR 6/2) iron depletions with clear boundaries within the matrix; few fine distinct rounded strong brown (7.5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; few fine concretions of iron and manganese; slightly alkaline; gradual wavy boundary.

Bss4—72 to 82 inches; brownish yellow (10YR 6/8) clay; coarse wedge-shaped fragments that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; common large intersecting slickensides with distinct polished and grooved surfaces; grooves are 2 to 6 inches across and  $\frac{1}{4}$  to  $\frac{3}{4}$  inch deep; many medium and coarse distinct irregularly shaped light brownish gray

(2.5Y 6/2) iron depletions with clear boundaries in the matrix; few fine concretions of iron and manganese oxides; moderately alkaline.

***Range in Characteristics***

*Thickness of the solum:* More than 40 inches

*A or Ap horizon:*

Color—dominantly hue of 10YR, value of 3 to 5, and chroma of 2 to 4; chroma of 1 or 2 in microbasins

Texture—silty clay or silty clay loam

*Bt horizon:*

Color—dominantly hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 6; chroma of 1 or 2 in microbasins

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of yellow, brown, and red

Reaction—very strongly acid or strongly acid

*Btss horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 6

Texture—clay

*Bss horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8; multicolored in shades of brown and gray; or a gray matrix

Texture—clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

Reaction—moderately acid to moderately alkaline

**Lucedale Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits of ridges and slightly concaved areas of ridges

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine-loamy, siliceous, subactive, thermic Rhodic Paleudults

***Commonly Associated Soils***

The Lucedale series is commonly associated with Heidelberg, McLaurin, Paxville, Ruston, and Smithdale soils.

- The well drained Heidelberg soils have a coarse-loamy argillic horizon and are on side slopes.
- The well drained McLaurin soils have a coarse-loamy argillic horizon and are in the more convex positions.
- The very poorly drained Paxville soils are in depressions.
- The well drained Ruston soils have moist color values of 4 or more throughout solum and are in the more convex positions.
- The well drained Smithdale soils are on side slopes.

### ***Typical Pedon***

Lucedale sandy loam, 0 to 2 percent slopes; about 10 miles south of Leakesville; 100 feet west and 100 feet north of the southeast corner of sec. 20, T. 1 N., R. 5 W.; USGS Vernal topographic quadrangle; lat. 31 degrees 1 minute 21.7 seconds N. and long. 88 degrees 30 minutes 25.2 seconds W.

Ap1—0 to 6 inches; very dark grayish brown (10YR 3/2) sandy loam; weak fine granular structure; friable; many fine and medium roots; strongly acid; clear smooth boundary.

Ap2—6 to 9 inches; dark reddish brown (2.5YR 3/4) sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; common fine and medium dark red (2.5YR 3/6) spots of material from the B horizon; strongly acid; clear wavy boundary.

Bt1—9 to 20 inches; dark red (2.5YR 3/6) sandy clay loam; weak coarse subangular blocky structure parting to fine and medium subangular blocky; friable; common fine roots; few distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—20 to 45 inches; dark red (2.5YR 3/6) sandy clay loam; moderate fine and medium subangular blocky structure; firm; few fine roots; few distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt3—45 to 64 inches; dark red (2.5YR 3/6) clay loam; weak fine and medium subangular blocky structure; slightly firm; few distinct clay films on faces of peds; few fine roots; very strongly acid; gradual wavy boundary.

Bt4—64 to 85 inches; dark red (2.5YR 3/6) sandy clay loam; weak fine and medium subangular blocky structure; friable; few faint clay films on faces of peds; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—dominantly hue of 10YR, value of 2 or 3, and chroma of 2 to 4; in the lower part in some pedons, hues similar to those of the Bt horizon

Texture—sandy loam

*BA or BE horizon (where present):*

Color—hue of 10R or 2.5YR, value of 3 or 4, and chroma of 4 to 6

Texture—fine sandy loam, sandy loam, or loam

*Bt horizon:*

Color—hue of 10R or 2.5YR, value of 3, and chroma of 4 to 6

Texture—clay loam, sandy clay loam, or loam

## **Luverne Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderately slow

*Parent material:* Stratified clayey and loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridgetops and side slopes

*Slope:* 1 to 35 percent

*Taxonomic classification:* Fine, mixed, semiactive, thermic Typic Hapludults

### ***Commonly Associated Soils***

The Luverne series is commonly associated with Boykin, Smithdale, and Wadley soils.

- The Boykin soils are in landscape positions similar to those of the Luverne soils but have a thick, sandy epipedon.
- The Smithdale soils are in landscape positions similar to those of the Luverne soils but are fine-loamy.
- The Wadley soils have a thick, sandy epipedon and are in slightly higher positions than the Luverne soils.

### ***Typical Pedon***

Luverne fine sandy loam, in an area of Boykin-Luverne-Smithdale complex, 15 to 35 percent slopes, eroded; about 2 miles northeast of Pennington in Choctaw County, Alabama; 100 feet north and 800 feet west of the southeast corner of sec. 26, T. 15 N., R. 1 W.

- A—0 to 3 inches; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine and common medium and coarse roots; strongly acid; abrupt smooth boundary.
- E—3 to 7 inches; brown (10YR 5/3) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and medium and few coarse roots; strongly acid; clear smooth boundary.
- Bt1—7 to 19 inches; red (2.5YR 4/6) clay loam; weak medium prismatic structure parting to moderate fine and medium subangular blocky; firm; few faint clay films on faces of peds; few medium distinct brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; clear wavy boundary.
- Bt2—19 to 36 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; many distinct strong brown (7.5YR 4/6) clay films on faces of peds; very strongly acid; clear wavy boundary.
- BC—36 to 49 inches; red (2.5YR 4/8) clay loam; weak coarse subangular blocky structure; firm; few fine roots; few fine light brownish gray (10YR 6/2) fragments of weathered shale; common medium and coarse prominent yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; gradual wavy boundary.
- C—49 to 80 inches; red (2.5YR 4/8) sandy clay loam; massive; firm; common thin discontinuous strata of sandy loam; common fine and medium fragments of light brownish gray (10YR 6/2) shale; many medium and coarse prominent brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 20 to 50 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—sandy loam or fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—sandy loam or fine sandy loam

*Bt horizon, upper part:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Redoximorphic features—none to common accumulations in shades of red, brown, and yellow

Texture—clay loam, sandy clay, or clay

*Bt horizon, lower part:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, brown, and yellow

Redoximorphic features—none to many accumulations in shades of red, brown, and yellow

Texture—sandy clay loam, clay loam, or clay

*BC horizon (where present):*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8; or no dominant matrix color and multicolored in shades of red, brown, and yellow

Redoximorphic features—few to many accumulations in shades of brown, red, and yellow and depletions in shades of gray

Texture—sandy clay loam or clay loam

*C horizon:*

Color—commonly stratified; hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Redoximorphic features—few to many redoximorphic accumulations in shades of red, brown, and yellow and none to common depletions in shades of gray

Fragments of soft shale—none to common

Texture—dominantly sandy loam, sandy clay loam, or clay loam; thin strata of finer or coarser material in some pedons

## **Malbis Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate in the upper part of the subsoil and moderately slow in the lower part

*Parent material:* Loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulders

*Slope:* 0 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults

### ***Commonly Associated Soils***

The Malbis series is commonly associated with Benndale, Freest, Irvington, Lorman, Ruston, Savannah, and Smithdale soils.

- The well drained Benndale soils are coarse-loamy and are on narrow ridges.
- The moderately well drained Freest soils have a fine-loamy argillic horizon over a clayey lower subsoil, do not contain plinthite, and are in the slightly higher positions.
- The moderately well drained Irvington soils have a fragipan with plinthite, are clayey in the lower part of the subsoil, and are on narrow ridges.
- The moderate well drained Lorman soils have a clayey argillic horizon and are on side slopes.
- The well drained Ruston soils have a red, fine-loamy subsoil that does not contain plinthite and are in the higher positions.
- The moderately well drained Savannah have a fragipan at a depth of about 24 inches and are in the slightly lower positions.
- The well drained Smithdale soils have a red, fine-loamy subsoil that does not contain plinthite and are on side slopes.

***Typical Pedon***

Malbis fine sandy loam, 2 to 5 percent slopes; about 10 miles west of Waynesboro; 200 feet south and 1,100 feet west of the northeast corner of sec. 33, T. 9 N., R. 8 W.; USGS Whisler topographic quadrangle; lat. 31 degrees 42 minutes 37.1 seconds N. and long. 88 degrees 47 minutes 44.0 seconds W.

- Ap1—0 to 3 inches; brown (10YR 4/3) fine sandy loam; weak medium granular structure; friable; many fine and medium and few coarse roots; few fine charcoal fragments; strongly acid; clear wavy boundary.
- Ap2—3 to 9 inches; dark yellowish brown (10YR 4/4) fine sandy loam; few fine streaks and pockets of yellowish brown (10YR 5/6) loam; weak medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; few fine charcoal fragments; strongly acid; abrupt wavy boundary.
- Bt1—9 to 21 inches; yellowish brown (10YR 5/6) loam; weak medium subangular blocky structure; friable; common fine and few medium roots; few faint clay films on vertical faces of peds; few fine iron concretions; strongly acid; gradual wavy boundary.
- Bt2—21 to 29 inches; yellowish brown (10YR 5/8) loam; weak medium subangular blocky structure; friable; common fine and few medium roots; few faint clay films on vertical faces of peds; few fine iron concretions; very strongly acid; gradual wavy boundary.
- Btv1—29 to 44 inches; yellowish brown (10YR 5/8) loam; weak very coarse and coarse prismatic structure parting to moderate medium subangular blocky; firm; brittle in about 20 percent of the volume; few fine roots; common fine pores; few faint clay films on vertical faces of peds and in pores; many medium and coarse prominent red (2.5YR 4/8) and common fine and medium distinct yellow (10YR 7/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries throughout the matrix; few fine iron concretions; about 6 percent nodular plinthite; very strongly acid; gradual wavy boundary.
- Btv2—44 to 56 inches; strong brown (7.5YR 5/8) loam; weak very coarse and coarse prismatic structure parting to moderate medium subangular blocky; firm; brittle in about 10 percent of the volume; few fine roots; common fine pores; few faint clay films on vertical faces of peds and in pores; common medium prominent red (2.5YR 4/8), common medium distinct brownish yellow (10YR 6/6), and few fine prominent red (10R 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries throughout the matrix; few fine iron concretions; about 5 percent nodular plinthite; very strongly acid; gradual wavy boundary.
- Btv3—56 to 68 inches; reddish yellow (7.5YR 6/8) loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; slightly brittle in about 10 percent of the volume; few faint clay films on vertical faces of peds; common fine pores; few fine prominent red (2.5YR 4/8) and common medium distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries throughout the matrix; few fine and medium iron concretions; about 3 percent nodular plinthite; very strongly acid; gradual wavy boundary.
- Btv4—68 to 82 inches; yellowish brown (10YR 5/6) sandy clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; firm; brittle in about 20 percent of the volume; few faint clay films on faces of peds; common fine pores; many fine to coarse prominent strong brown (7.5YR 5/8), many fine and medium prominent red (2.5YR 4/8), and common fine and medium prominent red

(10R 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine distinct light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries throughout the matrix; few fine and medium iron concretions; about 7 percent nodular plinthite; very strongly acid.

***Range in Characteristics***

*Thickness of the solum:* 60 inches or more

*Depth to contrasting soil material:* Depth to a horizon with 5 percent or more plinthite ranges from 21 to 36 inches

*Reaction:* Very strongly acid or strongly acid in all horizons, except where lime has been applied

*Ap or A horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 3 or 4; hue of 10YR, value of 4, and chroma of 1 to 4; or hue of 10YR, value of 5, and chroma of 2 or 3  
Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 to 7, and chroma of 3 or 4  
Texture—fine sandy loam or sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8  
Texture—sandy clay loam or loam

*Btv horizon:*

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8; or multicolored in shades of red, yellow, gray, and brown  
Texture—clay loam, sandy clay loam, or loam  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 5YR to 10YR, value of 5 to 7, and chroma of 4 to 8; multicolored in shades of red, yellow, gray, and brown; or a gray matrix  
Texture—sandy clay loam, clay loam, loam, fine sandy loam, or sandy loam  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*C horizon (where present):*

Color—hue of 2.5YR to 2.5Y, value of 5 to 7, and chroma of 6 to 8; multicolored in shades of red, yellow, gray, and brown; or a gray matrix  
Texture—clay, clay loam, sandy clay loam, loam, fine sandy loam, or sandy loam  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

**Mantachie Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Moderate

*Parent material:* Loamy alluvium

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Flat and slightly convex areas in backswamps and on the lower parts of natural levees

## Soil Survey of Wayne County, Mississippi

*Slope:* 0 to 1 percent

*Taxonomic classification:* Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts

### **Commonly Associated Soils**

The Mantachie series is commonly associated with Bibb, luka, Jena, Una, and Urbo soils.

- The poorly drained Bibb soils are in low, concave positions in backswamps.
- The moderately well drained luka soils are on the high parts of natural levees.
- The well drained Jena soils are on natural levees along streams.
- The Una and Urbo soils have more clay than the Mantachie soils and are in broader stream bottoms.

### **Typical Pedon**

Mantachie silt loam, in an area of luka, Bibb, and Mantachie soils, 0 to 1 percent slopes, frequently flooded; about 5 miles southwest of Grove Hill, Alabama; 1,750 feet south and 700 feet west of the northeast corner of sec. 15, T. 8 N., R. 2 E.; USGS Grove Hill topographic quadrangle; lat. 31 degrees 39 minutes 55 seconds N. and long. 87 degrees 51 minutes 23 seconds W.

A—0 to 9 inches; dark brown (10YR 3/3) silt loam; weak fine granular structure; very friable; many fine and few medium and coarse roots; few fine faint dark grayish brown (10YR 4/2) iron depletions; very strongly acid; clear smooth boundary.

Bw—9 to 20 inches; 60 percent brown (10YR 4/3) and 40 percent gray (10YR 5/1) loam; weak coarse subangular blocky structure; very friable; many fine roots; gray areas are iron depletions; very strongly acid; clear wavy boundary.

Bg1—20 to 30 inches; gray (10YR 5/1) clay loam; weak medium subangular blocky structure; friable; many fine roots; common medium distinct brown (10YR 4/3) and yellowish brown (10YR 5/4) masses of iron accumulation; very strongly acid; clear wavy boundary.

Bg2—30 to 39 inches; gray (10YR 5/1) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; common medium distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; very strongly acid; clear wavy boundary.

Cg—39 to 80 inches; gray (10YR 5/1) sandy loam; massive; thinly bedded; very friable; common thin strata of loamy sand; few fine distinct dark yellowish brown (10YR 4/4) masses of iron accumulation; very strongly acid.

### **Range in Characteristics**

*Thickness of the solum:* 35 to more than 60 inches

*Reaction:* Very strongly acid or strongly acid, except for the surface layer in areas that have been limed

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 or 3

Texture—silt loam

*Bw horizon:*

Color—hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 3 to 6; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray and masses of iron accumulation in shades of brown, red, or yellow

*Bg horizon:*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, red, yellow, and gray

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

*Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 to 7, and chroma of 1 or 2; or no dominant matrix color and multicolored in shades of brown, yellow, red, and gray

Texture—sandy loam, loam, sandy clay loam, or loamy sand; strata of finer or coarser textured material in most pedons

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

## **Maubila Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Clayey marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Convex summits, shoulders, and side slopes

*Slope:* 2 to 35 percent

*Taxonomic classification:* Fine, mixed, subactive, thermic Aquic Hapludults

### ***Commonly Associated Soils***

The Maubila series is commonly associated with Olla, Rattlesnake Forks, and Wadley soils.

- The fine-loamy Olla soils are on the less convex slopes on ridgetops and shoulders.
- The excessively drained Rattlesnake Forks have a deep, sandy solum and are on side slopes.
- The Wadley soils have a thick sandy epipedon and are at the slightly higher elevations on adjacent knolls and ridgetops and at the lower elevations on side slopes.

### ***Typical Pedon***

Maubila flaggy sandy loam, in an area of Olla-Maubila complex, 2 to 8 percent slopes; about 2.75 northwest of Zimco, Alabama; 150 feet north and 1,650 feet east of the southwest corner of sec. 19, T. 9 N., R. 2 E.; USGS Winn topographic quadrangle; lat. 31 degrees 43 minutes 42 seconds N. and long. 87 degrees 55 minutes 2 seconds W.

A—0 to 5 inches; dark grayish brown (10YR 4/2) flaggy sandy loam; weak fine granular structure; very friable; common fine roots; 20 percent, by volume, angular fragments of ironstone; very strongly acid; clear wavy boundary.

E—5 to 8 inches; yellowish brown (10YR 5/4) flaggy sandy loam; weak fine granular structure; very friable; few fine roots; 20 percent, by volume, angular fragments of ironstone; strongly acid; abrupt wavy boundary.

Bt1—8 to 15 inches; strong brown (7.5YR 5/6) clay loam; moderate medium angular blocky structure; firm; few fine and medium roots; many faint clay films on faces of peds; 6 percent, by volume, pebbles and channers of ironstone; few medium prominent red (2.5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.

Bt2—15 to 22 inches; strong brown (7.5YR 5/6) clay; moderate medium angular blocky and subangular blocky structure; firm; few fine and medium roots; common faint clay films on faces of peds; many medium prominent red (2.5YR 4/6) and common medium distinct light yellowish brown (10YR 6/4) masses of iron accumulation; 5

percent, by volume, pebbles and channers of ironstone; very strongly acid; clear smooth boundary.

Bt3—22 to 42 inches; 45 percent brownish yellow (10YR 6/6), 30 percent light gray (10YR 7/2), and 25 percent weak red (10R 4/4) clay; moderate coarse angular blocky structure parting to moderate medium subangular blocky; very firm; few medium roots; common faint clay films on faces of peds; very strongly acid; irregular diffuse boundary.

BC—42 to 55 inches; light gray (10YR 7/1) clay loam; moderate very coarse angular blocky structure; very firm; few fine roots; few faint clay films on vertical faces of peds; many coarse prominent red (2.5YR 4/6), yellowish red (5YR 5/8), and brownish yellow (10YR 6/6) masses of iron accumulation; very strongly acid; gradual smooth boundary.

C—55 to 80 inches; 40 percent weak red (10R 4/4), 35 percent light gray (10YR 7/1), and 25 percent brownish yellow (10YR 6/6) clay; massive; very firm; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 40 to 60 inches

*Content and size of rock fragments:* 5 percent to less than 35 percent, mostly channers and flagstones, in the A and E horizons; less than 15 percent, mostly pebbles and channers, in the B and C horizons

*Reaction:* Extremely acid to strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—flaggy sandy loam or flaggy loamy sand

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4

Texture—sandy loam, loamy fine sand, or loamy sand or the flaggy analogs of these textures

*Bt horizon, upper part:*

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 6 to 8

Texture—variable; commonly clay loam or clay, but having a thin subhorizon of sandy clay loam in some pedons

Redoximorphic features (where present)—iron or clay depletions in shades of gray and iron accumulations in shades of red and brown

*Bt horizon, lower part:*

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8; or no dominant color and multicolored in shades of red, brown, gray, or yellow

Texture—variable; commonly clay loam or clay, less commonly silty clay

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, brown, or yellow

*BC or CB horizon (where present):*

Color—hue of 5YR to 10YR, value of 5 to 8, and chroma of 1 or 2; or no dominant color and multicolored in shades of red, brown, gray, or yellow

Texture—clay loam, clay, or silty clay

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, brown, or yellow

*C horizon:*

Color—hue of 5YR to 10YR, value of 5 to 8, and chroma of 1 or 2; or no dominant color and multicolored in shades of red, brown, gray, or yellow

Texture—variable; commonly clay loam, clay, or silty clay but having thin strata or pockets of finer or coarser textured material in some pedons  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, brown, or yellow

## Maytag Series

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Alkaline, clayey sediments underlain by chalk

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Ridgetops and side slopes

*Slope:* 3 to 8 percent

*Taxonomic classification:* Fine, smectitic, thermic Oxyaquic Hapluderts

### Commonly Associated Soils

The Maytag series is commonly associated with Boswell, Brantley, Ichusa, Leeper, Louin, Oktibbeha, and Sumter soils.

- The Boswell soils are acid throughout and are in higher landscape positions than those of the Maytag soils.
- The Brantley and Oktibbeha soils are commonly in lower landscape positions than those of the Maytag soils.
- The Brantley soils are acid throughout.
- The somewhat poorly drained Ichusa soils are in the slightly lower positions.
- The somewhat poorly drained Leeper soils are on flood plains.
- The Sumter soils are in landscape positions similar to those of the Maytag soils but are moderately deep over chalk.

### Typical Pedon

Maytag silty clay loam, in an area of Sumter-Maytag complex, 3 to 8 percent slopes, eroded; about 1.3 miles south of Melvin in Choctaw County, Alabama; 1,600 feet south and 200 feet west of the northeast corner of sec. 22, T. 11 N., R. 5 W.

Ap—0 to 5 inches; dark grayish brown (2.5Y 4/2) silty clay loam; moderate medium granular structure; friable; common fine and medium roots; many fine soft masses of calcium carbonate; strongly effervescent; moderately alkaline; clear wavy boundary.

Bk—5 to 11 inches; light yellowish brown (2.5Y 6/4) silty clay; moderate medium subangular blocky structure; firm; common fine and few medium roots; common soft masses and hard nodules of calcium carbonate; many fine prominent brownish yellow (10YR 6/8) masses of iron accumulation; violently effervescent; moderately alkaline; clear wavy boundary.

Bkss1—11 to 18 inches; silty clay, light yellowish brown (2.5Y 6/4) interior and light gray (2.5Y 7/2) exterior; moderate coarse prismatic structure parting to strong coarse angular blocky; firm; few fine and medium roots; few large intersecting slickensides that have faint, slightly grooved surfaces; common soft masses and hard nodules of calcium carbonate; light gray areas on faces of peds and slickensides are iron depletions; many medium prominent brownish yellow (10YR 6/8) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

Bkss2—18 to 30 inches; silty clay, light yellowish brown (2.5Y 6/4) interior and light gray (2.5Y 7/2) exterior; moderate coarse subangular blocky structure; firm;

few fine and medium roots; common large intersecting slickensides that have prominent polished and grooved surfaces; common soft masses and hard nodules of calcium carbonate; light gray areas on faces of peds and slickensides are iron depletions; common medium prominent brownish yellow (10YR 6/8) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

Bkss3—30 to 42 inches; silty clay, light yellowish brown (2.5Y 6/4) interior and light gray (2.5Y 7/2) exterior; weak coarse subangular blocky structure; firm; few large intersecting slickensides that have faint, slightly grooved surfaces; common soft masses and hard nodules of calcium carbonate; light gray areas on faces of peds and slickensides are iron depletions; many coarse distinct light yellowish brown (10YR 6/4) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

BC—42 to 52 inches; silty clay loam, light yellowish brown (2.5Y 6/4) interior and light gray (2.5Y 7/2) exterior; weak coarse angular blocky structure; firm; common pressure faces; common soft masses and hard nodules of calcium carbonate; many coarse distinct olive yellow (2.5Y 6/6) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

C1—52 to 70 inches; light gray (2.5Y 7/2) silty clay; massive; firm; common soft masses and hard nodules of calcium carbonate; common medium distinct light yellowish brown (2.5Y 6/4) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

C2—70 to 80 inches; light yellowish brown (2.5Y 6/3) silty clay; massive; firm; common soft masses and hard nodules of calcium carbonate; common fine distinct olive yellow (2.5Y 6/6) masses of iron accumulation; violently effervescent; moderately alkaline.

### ***Range in Characteristics***

*Thickness of the solum:* 45 to more than 60 inches

*Depth to soft chalk:* More than 60 inches.

*Quantity of soft masses and hard nodules of calcium carbonate:* Few or common throughout the profile

*Reaction:* Slightly alkaline or moderately alkaline

*A or Ap horizon:*

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4

Texture—silty clay loam or silty clay

*Bk horizon (where present):*

Color—hue of 2.5Y or 5Y, value of 4 to 7, and chroma of 3 or 4

Redoximorphic features—none to many depletions in shades of gray and accumulations in shades of yellow and brown

Texture—silty clay loam, silty clay, or clay

*Bkss horizon:*

Color—hue of 2.5Y or 5Y, value of 4 to 7, and chroma of 2 to 5

Redoximorphic features—common or many depletions in shades of gray and accumulations in shades of yellow and brown

Texture—silty clay or clay

*BC horizon (where present):*

Color—hue of 2.5Y, value of 6 or 7, and chroma of 2 to 8

Redoximorphic features—common or many depletions in shades of gray and accumulations in shades of yellow and brown

Texture—silty clay loam, silty clay, or clay

*C horizon (present in most pedons):*

Color—hue of 2.5Y or 5Y, value of 6 or 7, and chroma of 2 to 4

Redoximorphic features—few or common depletions in shades of gray and accumulations in shades of yellow and brown

Texture—silty clay loam, silty clay, or clay

## **McCrory Series**

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Permeability:* Slow

*Parent material:* Loamy sediments that contain appreciable amounts of exchangeable sodium

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Flat or slightly concave slopes

*Slope:* 0 to 1 percent

*Taxonomic classification:* Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs

### **Commonly Associated Soils**

The McCrory series is commonly associated with Deerford soils.

- The somewhat poorly drained Deerford soils are in slightly higher, more convex positions than those of the McCrory soils.

### **Typical Pedon**

McCrory silt loam, in an area of McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded; 2.5 miles south of Melvin in Choctaw County, Alabama; 1,000 feet north and 1,700 feet east of the southwest corner of sec. 4, T. 11 N., R. 1 E.; USGS Morvin topographic quadrangle; lat. 31 degrees 56 minutes 50 seconds N. and long. 87 degrees 58 minutes 53 seconds W.

Ap—0 to 4 inches; brown (10YR 4/3) silt loam; weak fine granular structure; very friable; many fine and very fine roots; common fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; very strongly acid; abrupt smooth boundary.

E—4 to 9 inches; light brownish gray (10YR 6/2) silt loam; weak coarse subangular blocky structure; friable; common very fine, fine, and medium roots; few root channels filled with brown (10YR 4/3) loam; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary.

BE—9 to 14 inches; light brownish gray (10YR 6/2) silt loam; weak coarse subangular blocky structure; friable; few medium and coarse roots; few fine flakes of mica; few root channels filled with grayish brown (10YR 5/2) loam; many fine and medium distinct yellowish brown (10YR 5/4 and 5/6) and dark yellowish brown (10YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary.

Btn—14 to 23 inches; loam, yellowish brown (10YR 5/6) interior and light brownish gray (10YR 6/2) exterior; moderate coarse prismatic structure; firm; common very fine, fine, and medium roots; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of ped; discontinuous, thin (1 to 5 millimeters) seams of pale brown (10YR 6/3) very fine sandy loam between prisms; thin patchy black stains of iron and manganese oxides on faces of some ped; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation on faces of ped; few fine prominent yellowish red (5YR 4/6) masses of iron accumulation lining pores and root channels; common fine and medium distinct gray (10YR 6/1) iron depletions; slightly alkaline; clear wavy boundary.

## Soil Survey of Wayne County, Mississippi

- Btng1**—23 to 35 inches; gray (10YR 5/1) loam; moderate coarse prismatic structure; firm; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of peds; thin patchy black stains of iron and manganese oxides on faces of some peds; common medium distinct yellowish brown (10YR 5/4 and 5/6) and dark yellowish brown (10YR 4/6) masses of iron accumulation; strongly alkaline; gradual wavy boundary.
- Btng2**—35 to 47 inches; light brownish gray (10YR 6/2) loam; weak very coarse prismatic structure; firm; few fine flakes of mica; common distinct dark gray (10YR 4/1) clay films on faces of peds; thin patchy black stains of iron and manganese oxides on faces of some peds; common medium distinct dark yellowish brown (10YR 4/6) and few fine prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly alkaline; clear wavy boundary.
- Btng3**—47 to 58 inches; grayish brown (2.5Y 5/2) fine sandy loam; weak coarse prismatic structure; firm; many fine flakes of mica; few distinct dark gray (10YR 4/1) clay films on faces of peds; many medium prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly alkaline; gradual wavy boundary.
- Cg**—58 to 72 inches; grayish brown (2.5Y 5/2) fine sandy loam; massive; friable; many fine flakes of mica; many medium prominent strong brown (7.5YR 5/6) and yellowish brown (10YR 5/6) masses of iron accumulation; very strongly alkaline.

### ***Range in Characteristics***

*Thickness of the solum:* 40 to more than 60 inches

#### *A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

Texture—silt loam

Reaction—extremely acid to strongly acid, except where lime has been applied

#### *E and BE horizons (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Texture—fine sandy loam, loam, or silt loam

Redoximorphic features—masses of iron accumulation in shades of brown

Reaction—very strongly acid to slightly acid

#### *Btn horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 3 to 6

Texture—loam or sandy clay loam

Redoximorphic features—iron or clay depletions in shades of gray or brown and masses of iron accumulation in shades of brown, yellow, or red

Reaction—strongly acid to slightly alkaline

#### *Btng horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Texture—loam, fine sandy loam, or sandy clay loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Reaction—neutral to strongly alkaline in the upper part and slightly alkaline to very strongly alkaline in the lower part

#### *Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Texture—fine sandy loam or very fine sandy loam

Redoximorphic features—masses of iron accumulation in shades of brown, yellow, or red

Reaction—slightly alkaline to very strongly alkaline

## McLaurin Series

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Broad ridges

*Slope:* 0 to 8 percent

*Taxonomic classification:* Coarse-loamy, siliceous, subactive, thermic Typic Paleudults

### Commonly Associated Soils

The McLaurin series is commonly associated with Alaga, Benndale, Eustis, Heidel, Lucedale, Paxville, Ruston, Smithdale, and Wadley soils.

- The somewhat excessively drained Alaga soils are in the lower convex positions.
- The Benndale soils have a brown subsoil and are in positions that are similar to those of the McLaurin soils or slightly lower.
- The Eustis soils have a sandy subsoil and are in the slightly lower positions.
- The Heidel soils are on side slopes.
- The Lucedale soils have a fine-loamy, dark red subsoil and are in the slightly lower positions.
- The very poorly drained Paxville soils are in depressions.
- The Ruston soils have a fine-loamy subsoil and are in positions similar to those of the McLaurin soils.
- The Smithdale have a fine-loamy subsoil and are on side slopes.
- The somewhat excessively drained Wadley soils are on hillslopes and have thick, sandy A and E horizons with a combined thickness of more than 40 inches.

### Typical Pedon

McLaurin fine sandy loam, 0 to 8 percent slopes; about 6.5 miles southeast of Leakesville in Greene County; about 400 feet east and 1,100 feet north of the southwest corner of sec. 14, T. 1 N., R. 5 W.; USGS Browntown topographic quadrangle; lat. 31 degrees 2 minutes 42.3 seconds N. and long. 88 degrees 27 minutes 54.3 seconds W.

A—0 to 6 inches; dark brown (10YR 3/3) fine sandy loam; weak fine and medium granular structure; friable; many fine and medium roots; moderately acid; clear smooth boundary.

BE—6 to 14 inches; yellowish red (5YR 5/6) sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; common fine to coarse faint reddish brown (5YR 5/4) mottles; strongly acid; clear wavy boundary.

Bt1—14 to 28 inches; yellowish red (5YR 5/8) sandy loam; weak fine and medium subangular blocky structure; friable; common fine and medium roots; sand grains coated and bridged with clay; strongly acid; gradual wavy boundary.

Bt2—28 to 32 inches; red (2.5YR 4/6) sandy loam; weak fine and medium subangular blocky structure; friable; few fine roots; clay bridging between sand grains; very strongly acid; gradual wavy boundary.

B/E—32 to 38 inches; red (2.5YR 4/6) sandy loam; weak fine and medium subangular blocky structure; friable; sand grains coated and bridged with clay; common fine and medium prominent light yellowish brown (10YR 6/4) masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Bt'1—38 to 68 inches; red (2.5YR 4/6) sandy loam; weak fine and medium subangular blocky structure; friable; sand grains coated and bridged with clay; very strongly acid; gradual wavy boundary.

Bt'2—68 to 80 inches; red (2.5YR 4/6) sandy loam; weak medium subangular blocky structure; friable; sand grains coated and bridged with clay; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—dominantly hue of 10YR, value of 3 or 4, and chroma of 2 to 4; value of 3 and chroma of 2 or less where the horizon is less than 6 inches thick

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—fine sandy loam or sandy loam

*EB or BE horizon (where present):*

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—fine sandy loam or sandy loam

*Bt horizon:*

Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 4 to 8

Texture—loam, sandy loam, or fine sandy loam

*B/E horizon, B part:*

Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 4 to 8

Texture—loamy sand, sandy loam, or fine sandy loam

*B/E horizon, E part:*

Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 4 to 8

Extent—about 10 to 25 percent, by volume, in a discontinuous pattern

Texture—almost stripped of clay; loamy sand, sandy loam, or fine sandy loam

*B't horizon (where present):*

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 4 to 8

Texture—fine sandy loam, sandy loam, loam, or sandy clay loam

## **Okeelala Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and shoulder slopes

*Slope:* 5 to 35 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Ultic Hapludalfs

### ***Commonly Associated Soils***

The Okeelala series is commonly associated with Boswell, Brantley, Heidel, Leeper, Prim, Ruston, Shubuta, Smithdale, Suggsville, and Watsonia soils.

## Soil Survey of Wayne County, Mississippi

- The moderately well drained Boswell soils have a clayey argillic horizon with vertic properties and are in the lower positions.
- The Brantley soils have a clayey argillic horizon and are in positions similar to those of the Okeelala soils.
- The Heidel soils are on side slopes in positions similar to those of the Okeelala soils but have coarser textures.
- The somewhat poorly drained Leeper soils are in stream bottoms that are subject to flooding.
- The Prim soils are shallow to bedrock and are on the upper parts of side slopes.
- The Ruston soils have a bisecting profile and are on broad ridgetops and on summits.
- The well drained Shubuta soils are in the slightly lower positions.
- The Smithdale soils have a fine-loamy argillic horizon and are in the slightly higher positions.
- The Suggsville soils are in a very fine textural family and are in the lower positions.
- The Watsonia soils are shallow to chalk and are on ridges and upper side slopes.

### ***Typical Pedon***

Okeelala fine sandy loam, in an area of Brantley-Okeelala complex, 15 to 35 percent slopes, eroded; about 9 miles east of Waynesboro; 2,000 feet west and 700 feet south of the northeast corner of sec. 21, T. 9 N., R. 5 W.; USGS Aquilla topographic quadrangle; lat. 31 degrees 44 minutes 20 seconds N. and long. 88 degrees 29 minutes 18 seconds W.

- A—0 to 2 inches; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine and common medium roots; moderately acid; clear smooth boundary.
- E—2 to 4 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and few medium roots; moderately acid; clear smooth boundary.
- B/E—4 to 8 inches; 70 percent red (2.5YR 5/8) sandy clay loam (Bt); weak coarse subangular blocky structure; friable; common faint clay films on faces of peds; many fine and few medium roots; 30 percent strong brown (7.5YR 5/6) fine sandy loam (E); moderately acid; clear wavy boundary.
- Bt1—8 to 14 inches; red (2.5YR 4/6) sandy clay loam; moderate medium subangular blocky structure; friable; few coarse, common medium, and many fine roots; few distinct dark red (10R 3/6) clay films on faces of peds; strongly acid; gradual wavy boundary.
- Bt2—14 to 27 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; few coarse, common medium, and many fine roots; few distinct dark red (10R 3/6) clay films on faces of peds; strongly acid; gradual wavy boundary.
- Bt3—27 to 36 inches; red (2.5YR 4/8) sandy clay loam; weak fine to coarse subangular blocky structure; friable; common medium and many fine roots; few distinct dark red (2.5YR 3/6) clay films on faces of peds; strongly acid; gradual wavy boundary.
- Bt4—36 to 45 inches; red (2.5YR 4/8) loam; weak coarse subangular blocky structure; friable; few fine roots; common faint clay films on faces of peds; strongly acid; gradual wavy boundary.
- Bt5—45 to 55 inches; red (2.5YR 4/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; strongly acid; gradual wavy boundary.
- BC—55 to 70 inches; red (2.5YR 4/8) sandy loam; weak medium and coarse subangular blocky structure; friable; strongly acid; gradual wavy boundary.

C—70 to 81 inches; red (2.5YR 4/8) loamy fine sand; massive; loose; few fine distinct strong brown (7.5YR 5/8) masses of iron accumulation with clear boundaries in the matrix; strongly acid.

***Range in Characteristics***

*Thickness of the solum:* 40 to more than 60 inches

*Content and size of rock fragments:* Some pedons have up to 5 percent limestone cobbles and stones on the surface

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3

Texture—fine sandy loam

*Ap horizon (where present):*

Color—hue of 10YR, value of 4, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6; or hue of 7.5YR, value of 5, and chroma of 4 to 6

Texture—fine sandy loam

*EB or B/E horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—fine sandy loam, loam, or sandy clay loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 6 to 8

Texture—sandy clay loam or clay loam

Redoximorphic features (where present)—none to common masses of iron accumulation in shades of red, yellow, and brown. They are relict redoximorphic features.

*BC or C horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 6 to 8

Texture—sandy loam, loamy fine sand, or, in some pedons, stratified layers of sandy loam, loamy fine sand, sand, sandy clay loam, clay loam, and clay

**Olla Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate in the solum and moderately slow in the substratum

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulders

*Slope:* 2 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, active, thermic Typic Hapludults

***Commonly Associated Soils***

The Olla series is commonly associated with Maubila, Rattlesnake Forks, Smithdale, and Wadley soils.

## Soil Survey of Wayne County, Mississippi

- The clayey Maubila soils are on the more convex slopes on ridgetops and shoulders.
- The Rattlesnake Forks have a deep, sandy solum and are on side slopes and toeslopes.
- The Smithdale soils have a subsoil with hue of 5YR or redder and are at the slightly higher elevations on adjacent knolls and ridgetops and at the lower elevations on side slopes.
- The Wadley soils are sandy in the upper part of the solum and are on the upper parts of side slopes.

### ***Typical Pedon***

Olla loamy fine sand, in an area of Olla-Maubila complex, 2 to 8 percent slopes; about 1 mile northwest of Carlton in Washington County, Alabama; 100 feet north and 1,660 feet west of the southeast corner of sec. 34, T. 5 N., R. 2 E.; USGS Carlton topographic quadrangle; lat. 31 degrees 21 minutes 27 seconds N. and long. 87 degrees 51 minutes 35 seconds W.

A—0 to 4 inches; brown (10YR 4/3) loamy fine sand; weak fine granular structure; very friable; common fine and medium roots; extremely acid; clear wavy boundary.

E—4 to 13 inches; brownish yellow (10YR 6/6) loamy fine sand; weak fine granular structure; very friable; common fine and medium roots; common medium distinct brown (10YR 4/3) pockets of loamy fine sand from the A horizon; 10 percent, by volume, channers of ironstone; abrupt smooth boundary; very strongly acid; abrupt smooth boundary.

Bt1—13 to 22 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; firm; common medium roots; few faint clay films on faces of peds; common prominent dark brown (10YR 3/2) organic stains along root channels; very strongly acid; gradual wavy boundary.

Bt2—22 to 37 inches; yellowish brown (10YR 5/8) fine sandy loam; weak fine subangular blocky structure; friable; few faint clay films on faces of peds; few fine faint very pale brown (10YR 7/3) iron and clay depletions; very strongly acid; gradual wavy boundary.

C—37 to 80 inches; brownish yellow (10YR 6/8) stratified sandy clay loam and sandy clay; massive; firm; less than 5 percent, by volume, nodules of plinthite; common medium prominent yellowish red (5YR 4/8) masses of iron accumulation; few fine prominent light gray (10YR 7/1) and very pale brown (10YR 7/3) iron depletions; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 30 to more than 60 inches

*Reaction:* Extremely acid to strongly acid, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 3 or 4

Texture—loamy fine sand

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 4 to 6

Texture—loamy fine sand or fine sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, or fine sandy loam

Redoximorphic features (where present)—iron or clay depletions in shades of brown and iron accumulations in shades of red or brown

*C horizon:*

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—stratified sand, fine sandy loam, sandy clay loam, or sandy clay

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Paxville Series**

*Depth class:* Very deep

*Drainage class:* Very poorly drained

*Permeability:* Moderate

*Parent material:* Loamy marine and alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Upland depressions

*Landform position:* Slightly concave positions

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Typic Umbraquults

### **Commonly Associated Soils**

The Paxville series is commonly associated with Benndale, Lucedale, McLaurin, and Ruston soils.

- The Benndale soils have a brown, coarse-loamy subsoil and are on ridges and side slopes at the higher elevations.
- The Lucedale soils have a dark red subsoil and are on summits of ridges at the slightly higher elevations.
- The McLaurin soils have a red, coarse-loamy subsoil and are on ridges at the slightly higher elevations.
- The Ruston soils have a red subsoil and are on ridges at the slightly higher elevations.

### **Typical Pedon**

Paxville loam, 0 to 2 percent; about 8 miles south-southeast of Leakesville in Greene County; 650 feet north and 1,900 feet west of the southeast corner of sec. 29, T. 1 N., R. 5 W.; USGS Vernal SW topographic quadrangle; lat. 31 degrees 00 minutes 51.98 seconds N and long. 88 degrees 30 minutes 24.09 seconds W.

A1—0 to 2 inches; black (2.5Y 2.5/1) loam; 15 percent fibers after rubbing; massive; many fine and medium roots; strongly acid; abrupt smooth boundary.

A2—2 to 12 inches; black (10YR 2/1) loam; weak fine and medium granular structure; friable; many fine and medium and few coarse roots; very strongly acid; abrupt smooth boundary.

A3—12 to 15 inches; very dark gray (10YR 3/1) silt loam; weak fine and medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear sharp boundary.

Btg1—15 to 34 inches; gray (10YR 5/1) clay loam; weak coarse prismatic structure parting to weak coarse subangular blocky; slightly firm; many fine and medium roots; common faint clay films on faces of peds; few fine concretions of manganese throughout; common fine and medium prominent strong brown (7.5YR 5/6) and few fine and medium prominent red (10R 4/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; clear wavy boundary.

Btg2—34 to 45 inches; light brownish gray (10YR 6/2) sandy clay loam; weak coarse prismatic structure parting to weak coarse subangular blocky; friable; few fine roots; few faint clay films on faces of peds; few fine concretions of manganese throughout; few fine and medium prominent strong brown (7.5YR 5/6) and yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

Btg3—45 to 57 inches; light gray (10YR 6/1) sandy clay loam; weak coarse prismatic structure parting to weak coarse subangular blocky; very friable; few faint clay films on faces of peds; few fine and medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; strongly acid; gradual wavy boundary.

Btg4—57 to 65 inches; light gray (10YR 7/2) sandy loam; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; very friable; few faint clay films on faces of peds; few fine prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; strongly acid; gradual wavy boundary.

Btg5—65 to 83 inches; light brownish gray (10YR 6/2) sandy loam; weak coarse prismatic structure parting to moderate coarse subangular blocky; very friable; few faint clay films on faces of peds; few fine prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with sharp boundaries along faces of peds; strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 41 to more than 60 inches

*Reaction:* Very strongly acid in the A and E horizons, except where lime has been applied, and very strongly acid or strongly acid in the Bt, BC, and C horizons

*A horizon:*

Color—hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 2 or less; or neutral in hue and value of 2 or 3

Texture—loam or silt loam; some fibric material

*E or Eg horizon (where present):*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 or 2

Texture—loam or silt loam

*Btg horizon:*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 2 or less; or neutral in hue and value of 5 to 7

Texture—sandy clay loam, clay loam, loam, fine sandy loam, sandy loam, or silty clay loam

Redoximorphic features—few to many iron accumulations in shades of yellow, brown, or red; none to many concretions of iron and manganese

*BCg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 6 to 7, and chroma of 1 or 2

Texture—fine sandy loam, sandy loam, sandy clay, clay loam, or sandy clay loam with strata of coarser material

Redoximorphic features—few to many iron accumulations in shades of yellow, brown, and red; none to many concretions of iron and manganese

*Cg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 6 or 7, and chroma of 1 or 2

Texture—fine sandy loam, sandy loam, loamy sand, fine sand, or sand; pockets of strata of loamy and clayey material in some pedons

Redoximorphic features (where present)—few to many iron accumulations in shades of yellow and brown; none to many concretions of iron and manganese

## **Petal Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Slow

*Parent material:* Marine sediments that are loamy in the upper part and clayey in the lower part

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes

*Slope:* 2 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, active, thermic Aquic Paleudalfs

### **Commonly Associated Soils**

The Petal series is commonly associated with Benndale, Freest, Lorman, Smithdale, and Susquehanna soils.

- The well drained Benndale soils have a coarse-loamy argillic horizon and are on ridges and the lower side slopes.
- The moderately well drained Freest soils have a brown, fine-loamy argillic horizon over clay and are on ridges and the upper shoulder slopes.
- The moderately well drained Lorman soils have vertic properties and are on side slopes.
- The well drained Smithdale soils have a red, fine-loamy argillic horizon and are on side slopes.
- The somewhat poorly drained Susquehanna soils have a clayey argillic horizon with vertic properties and are on ridges and the upper shoulder slopes.

### **Typical Pedon**

Petal fine sandy loam, in an area of Lorman-Petal complex, 5 to 15 percent slopes; in a wooded area about 17 miles southwest of Waynesboro; 175 feet north and 525 feet west of the southeast corner of sec. 4, T. 6 N., R. 9 W.; USGS Streightford topographic quadrangle; lat. 31 degrees 30 minutes 22.9 seconds N. and long. 88 degrees 53 minutes 41.1 seconds W.

- A1—0 to 2 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; many fine, medium, and coarse roots; strongly acid; clear smooth boundary.
- A2—2 to 6 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak medium subangular blocky structure; friable; many fine and common medium and coarse roots; strongly acid; clear smooth boundary.
- EB—6 to 9 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; friable; many fine and common medium and coarse roots; strongly acid; clear smooth boundary.
- Bt1—9 to 19 inches; yellowish red (5YR 5/6) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; common fine and few medium and coarse roots; very strongly acid; gradual wavy boundary.
- Bt2—19 to 27 inches; red (2.5YR 5/6) sandy clay loam; weak coarse subangular blocky structure; friable; few faint clay films on faces of peds; common fine and few medium roots; common fine and medium quartz pebbles in the lower 2 inches of the horizon; many fine and medium distinct strong brown (7.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- 2Bt1—27 to 49 inches; brownish yellow (10YR 6/8) clay; weak coarse prismatic structure parting to moderate medium subangular blocky; firm, sticky and plastic; common faint clay films on faces of peds; few fine roots; common fine and medium prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine and medium prominent

light brownish gray (10YR 6/2) and common medium prominent light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

2Bt2—49 to 62 inches; light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, sticky and plastic; common faint clay films on faces of peds; many fine and medium prominent reddish yellow (7.5YR 6/8) and common fine and medium prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine and medium faint light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

2Bt3—62 to 72 inches; brownish yellow (10YR 6/8) clay; moderate medium angular blocky structure; firm; common faint clay films on faces of peds; few intersecting slickensides; few fine and medium prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common medium prominent light gray (10YR 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

2Bt4—72 to 81 inches; light gray (2.5YR 7/2) clay; moderate fine and medium angular blocky structure; firm; common faint clay films on faces of peds; few intersecting slickensides; common fine and medium prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine and medium prominent pinkish gray (5YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Content of concretions:* Few or common quartz pebbles in the Bt and 2Bt horizons in some pedons

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

#### *A horizon:*

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3

Texture—fine sandy loam

#### *E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam

#### *EB horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam

#### *Bt horizon:*

Color—hue of 7.5YR or 5YR, value of 5 to 7, and chroma of 4 to 8

Texture—loam, sandy clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of yellow, brown, and red

#### *2Bt horizon:*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 2; hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 6 to 8; or multicolored in shades of yellow, brown, gray, and red

Texture—clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2; hue of 7.5YR, value of 6 or 7, and chroma of 6 to 8; or multicolored in shades of gray, red, yellow, and brown

Texture—clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Prentiss Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in the Bt horizon and slow in the Btx horizon

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Broad, undulating, low ridges

*Slope:* 0 to 5 percent

*Taxonomic classification:* Coarse-loamy, siliceous, semiactive, thermic Glossic Fragiudults

### ***Commonly Associated Soils***

The Prentiss series is commonly associated with Cahaba, Harleston, Quitman, Savannah, and Stough soils.

- The well drained Cahaba soils have a red, fine-loamy Bt horizon and are in the slightly lower positions adjacent to major streams.
- The moderately well drained Harleston soils do not have a fragipan and are in the slightly lower positions.
- The somewhat poorly drained Quitman soils have a fine-loamy argillic horizon with no fragipan and are in the lower positions.
- The moderately well drained Savannah soils are fine-loamy and are in positions similar to those of the Prentiss soils or slightly higher.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon with no fragipan and are in the lower positions.

### ***Typical Pedon***

Prentiss fine sandy loam, 0 to 2 percent slopes; in a pine plantation about 14 miles northeast of Waynesboro; 2,550 feet south and 150 feet west of the northeast corner of sec. 21, T. 10 N., R. 5 W.; USGS Isney topographic quadrangle; lat. 31 degrees 49 minutes 21.5 seconds N. and long. 88 degrees 28 minutes 51.9 seconds W.

Ap1—0 to 5 inches; very dark gray (10YR 3/1) fine sandy loam; weak medium subangular blocky structure; friable; many fine and medium and common coarse roots; very strongly acid; clear wavy boundary.

Ap2—5 to 8 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak coarse subangular blocky structure; friable; many fine, common medium, and few coarse roots; many medium and coarse yellowish brown (10YR 5/4) spots; very strongly acid; clear wavy boundary.

Bt—8 to 19 inches; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and few medium and coarse roots; sand grains coated and bridged with clay; few fine iron-manganese concretions; common fine distinct pale brown (10YR 6/3) clean sand grains around roots; few fine distinct strong brown (7.5YR 4/6) irregularly shaped masses of iron

accumulation with clear boundaries throughout the matrix; very strongly acid; clear wavy boundary.

- B/E—19 to 23 inches; 85 percent yellowish brown (10YR 5/6) fine sandy loam (B); weak coarse prismatic structure parting to moderate medium subangular blocky; firm; few fine to coarse roots; few faint clay films on vertical faces of peds; few fine iron-manganese concretions; many medium distinct strong brown (7.5YR 4/6) masses of brittle bodies with sharp boundaries throughout the matrix; common medium distinct light brownish gray (10YR 6/2) iron depletions with clear boundaries within the matrix; 15 percent pale brown (10YR 6/3) fine sandy loam (E) surrounding prisms; very strongly acid; gradual wavy boundary.
- Btx1—23 to 37 inches; mixed 30 percent yellowish brown (10YR 5/6), 25 percent light yellowish brown (10YR 6/4), 25 percent light brownish gray (10YR 6/2), and 20 percent strong brown (7.5YR 5/6) fine sandy loam; weak very coarse prismatic structure parting to moderate medium subangular blocky; firm; compact and brittle in more than 75 percent of the mass; few fine roots; few fine pores; few faint clay films on vertical faces of peds; areas of light yellowish brown and strong brown are masses of iron accumulation; areas of light brownish gray are iron depletions; 20 percent light gray (10YR 7/2) fine sandy loam seams that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide between prisms; very strongly acid; gradual wavy boundary.
- Btx2—37 to 52 inches; strong brown (7.5YR 5/6) fine sandy loam; weak very coarse prismatic structure parting to moderate medium subangular blocky; firm; compact and brittle in more than 65 percent of the mass; few fine roots in seams; few fine pores; few faint clay films on vertical faces of peds; many medium prominent pale brown (10YR 6/3) and few fine and medium prominent red (2.5YR 4/6) masses of iron accumulation with clear boundaries within the matrix; 20 percent light gray (10YR 7/1) fine sandy loam seams that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide between prisms; very strongly acid; gradual wavy boundary.
- Btx3—52 to 65 inches; strong brown (7.5YR 5/6) sandy clay loam; weak very coarse prismatic structure parting to moderate medium subangular blocky; firm; compact and brittle in about 40 percent of the mass; few fine pores; few faint clay films on vertical faces of peds; many medium prominent pale brown (10YR 6/3) and common medium prominent red (2.5YR 4/6) masses of iron accumulation with clear boundaries within the matrix; 20 percent light gray (10YR 7/1) fine sandy loam seams that are  $\frac{1}{4}$  to  $\frac{1}{2}$  inch wide between prisms; very strongly acid; gradual wavy boundary.
- BC—65 to 81 inches; mixed 40 percent strong brown (7.5YR 5/8), 35 percent light gray (10YR 7/1), and 25 percent red (10R 4/6) sandy clay loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; firm; compact and brittle in about 20 percent of the mass; few faint clay films on faces of peds; areas of red are masses of iron accumulation; areas of light gray are iron depletions; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 68 to more than 80 inches

*Depth to fragipan:* 23 to 29 inches

*Depth to bedrock:* More than 80 inches

*Content of concretions:* Few to common iron and manganese concretions in the Btx horizon

*Other features:* The fragipan has gray vertical seams that form a roughly polygonal pattern of prisms. The matrix of the prisms is firm when dry and brittle when moist in the major part of the fragipan.

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

## Soil Survey of Wayne County, Mississippi

### *A or Ap horizon:*

Color—dominantly hue of 10YR, value of 4 or 5, and chroma of 2 to 4. Some pedons have a thin A1 horizon that is less than 6 inches thick and has a hue of 10YR, value of 3, and chroma of 1 to 3.

Texture—fine sandy loam

### *E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—very fine sandy loam, fine sandy loam, or sandy loam

### *Upper Bt horizon:*

Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 8; or hue of 2.5Y, value of 5, and chroma of 4 to 6

Texture—loam, very fine sandy loam, fine sandy loam, or sandy loam

Redoximorphic features (where present)—iron accumulations in shades of yellow and brown

### *B/E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 to 6

Texture—very fine sandy loam, fine sandy loam, or sandy loam

### *Btx horizon:*

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 3 to 8; multicolored in shades of yellow, brown, gray, and red; or, in the lower part, a gray matrix

Texture—loam, very fine sandy loam, fine sandy loam, or sandy loam; or, in the lower part, sandy clay loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray; iron accumulations in shades of red, yellow, and brown; and seams of E material along the prism walls

### *BC horizon (where present):*

Color—hue of 10YR or 7.5YR, value of 5 or 6, and chroma of 4 to 8; hue of 10YR, value of 5 to 7, and chroma of 1 or 2; or multicolored in shades of yellow, brown, red, and gray

Texture—sandy clay loam, loam, or sandy loam

Redoximorphic features (where present)—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

### *Lower Bt horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 8; hue of 2.5Y, value of 5, and chroma of 4 to 6; or multicolored in shades of yellow, brown, red, and gray

Texture—loam, very fine sandy loam, fine sandy loam, sandy loam, or sandy clay loam

Redoximorphic features (where present)—iron accumulations in shades of yellow and brown

## **Prim Series**

*Depth class:* Shallow

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy residuum weathered from interbedded limestone and chalk

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Summits, shoulder slopes, benches, and the upper parts of side slopes

*Slope:* 2 to 60 percent

*Taxonomic classification:* Loamy-skeletal, carbonatic, thermic, shallow Typic Haprendolls

### ***Commonly Associated Soils***

The Prim series is commonly associated with Brantley, Lorman, Okeelala, Suggsville, and Watsonia soils.

- The very deep Brantley and Lorman soils have a clayey subsoil and are on ridges and side slopes at lower elevations than the Prim soils.
- The very deep Okeelala soils have a loamy subsoil and are on side slopes at lower elevations than the Prim soils.
- The deep Suggsville soils are in positions similar to those of the Prim soils but are clayey throughout.
- The Watsonia soils are shallow to chalk and are on ridges and upper side slopes.

### ***Typical Pedon***

Prim very cobbly clay loam, in an area of Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes; about 3.5 miles northwest of Barlow Bend in Clarke County, Alabama; 1,800 feet north and 150 feet west of the southeast corner of sec. 10, T. 6 N., R. 4 E.; USGS Gainestown topographic quadrangle; lat. 31 degrees 30 minutes 4 seconds N. and long. 87 degrees 39 minutes 5 seconds W.

A—0 to 7 inches; black (10YR 2/1) very cobbly clay loam; moderate medium granular structure; friable; many fine roots; about 40 percent chalk channers and limestone cobbles; strongly effervescent; slightly alkaline; clear smooth boundary.

C—7 to 15 inches; olive gray (5Y 5/2) extremely cobbly sandy loam; massive; very friable; few fine and medium roots; few fine concretions of calcium carbonate; about 65 percent chalk channers and limestone cobbles; strongly effervescent; moderately alkaline; gradual wavy boundary.

Cr—15 to 80 inches; interbedded light gray (5Y 7/2) chalk and limestone; massive; extremely firm; strongly effervescent; moderately alkaline.

### ***Range in Characteristics***

*Depth to bedrock:* 10 to 20 inches

*Reaction:* Slightly alkaline or moderately alkaline

*A horizon:*

Color—hue of 10YR or 2.5Y, value of 2 or 3, and chroma of 1 to 3

Content and size of rock fragments—35 to 60 percent channers of chalk and cobbles of limestone

Texture—very cobbly clay loam

*C horizon:*

Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 1 to 3

Texture—extremely cobbly or very cobbly sandy loam, loam, or clay loam

Content and size of rock fragments—35 to 75 percent channers of chalk and cobbles of limestone

*Cr horizon:*

Type of bedrock—interbedded chalk, soft limestone, and indurated limestone; massive or platy rock structure

Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

## **Quitman Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Moderately slow

## Soil Survey of Wayne County, Mississippi

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Low stream terraces

*Landform position:* Planar to slightly concave slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults

### **Commonly Associated Soils**

The Quitman series is commonly associated with Annemaine, Bibb, Bigbee, Cahaba, Harleston, Iuka, Prentiss, Savannah, and Stough soils.

- The moderately well drained Annemaine soils are on the slightly higher terraces and have a clay argillic horizon.
- The poorly drained Bibb soils are on flood plains and are coarse loamy.
- The excessively well drained Bigbee soils have a sandy control section and are on the slightly higher terraces.
- The well drained Cahaba soils have a red argillic horizon and are on the slightly higher terraces.
- The moderately well drained Harleston soils are at elevations similar to those of the Quitman soils.
- The well drained Iuka soils are on natural levees along streams.
- The moderately well drained Prentiss soils are coarse loamy, have a fragipan, and are on the higher terraces.
- The moderately well drained Savannah soils have a fragipan and are on the higher terraces.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon with fragic properties and are in positions similar to those of the Quitman soils.

### **Typical Pedon**

Quitman fine sandy loam, 0 to 2 percent slopes, occasionally flooded; in a wooded area about 13.5 miles southwest of Waynesboro; 1,700 feet south and 800 feet east of the northwest corner of sec. 31, T. 7 N., R. 8 W.; USGS Water Oak topographic quadrangle; lat. 31 degrees 32 minutes 2.2 seconds N. and long. 88 degrees 50 minutes 18.3 seconds W.

A—0 to 5 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak fine and medium granular structure; friable; many fine, medium, and coarse roots; strongly acid; clear smooth boundary.

E—5 to 10 inches; pale brown (10YR 6/3) fine sandy loam; weak medium and coarse subangular blocky structure; friable; common fine and few medium and coarse roots; common coarse distinct brownish yellow (10YR 6/6) and few fine prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; common coarse faint light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; many fine distinct dark grayish brown (10YR 4/2) areas of material from the A horizon in worm holes and old root channels; very strongly acid; gradual wavy boundary.

BE—10 to 15 inches; light yellowish brown (10YR 6/4) loam; weak coarse subangular blocky structure; friable; common fine and few medium roots; common fine pores; few fine pockets of clean sand; common medium faint yellowish brown (10YR 5/4) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; common fine distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; clear wavy boundary.

## Soil Survey of Wayne County, Mississippi

- Btg—15 to 24 inches; light brownish gray (10YR 6/2) sandy clay loam; weak coarse prismatic structure parting to weak coarse subangular blocky; friable; common fine roots; many fine pores; few faint clay films on faces of peds; common fine iron-manganese concretions; few fine streaks of clean sand; many medium distinct light yellowish brown (10YR 6/4), few fine prominent strong brown (7.5YR 5/6), and many coarse faint pale brown (10YR 6/3) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btxg1—24 to 36 inches; light brownish gray (10YR 6/2) sandy clay loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; slightly firm, compact, and brittle in about 20 percent of the volume; few fine roots; common fine pores; common distinct light gray (10YR 6/1) clay films on faces of peds; few thin vertical streaks of clean sand in seams between prisms; common fine, medium, and coarse iron-manganese concretions; many coarse distinct light yellowish brown (10YR 6/4) and common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btxg2—36 to 54 inches; light brownish gray (2.5Y 6/2) sandy clay loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; slightly firm, compact, and brittle in about 20 percent of the volume; few fine roots; few fine pores; few distinct light gray (10YR 6/1) clay films on faces of peds; common distinct iron-manganese coatings on faces of peds; few thin vertical streaks of clean sand in seams between prisms; many coarse prominent strong brown (7.5YR 5/6) and many coarse prominent yellowish red (5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btxg3—54 to 62 inches; light brownish gray (2.5Y 6/2) sandy clay loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; slightly firm, compact, and brittle in about 20 percent of the volume; few fine roots; few distinct light gray (10YR 6/1) clay films on faces of peds; common distinct iron-manganese coatings on faces of peds; few thin vertical streaks of clean sand in seams between prisms; many coarse prominent strong brown (7.5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; common fine distinct light gray (10YR 7/1) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btxg4—62 to 80 inches; light brownish gray (2.5Y 6/2) sandy clay loam; weak coarse prismatic structure parting to weak coarse subangular blocky; slightly firm, compact, and brittle in about 20 percent of the volume; few fine roots; few distinct light gray (10YR 6/1) clay films on faces of peds; few thin vertical streaks of clean sand in seams between prisms; common distinct iron-manganese coatings on faces of peds; many coarse prominent strong brown (7.5YR 5/6) and common medium prominent yellowish red (5YR 5/6) masses of iron accumulation with clear boundaries within the matrix; few thin vertical streaks of clean sand in seams between prisms; common fine distinct light gray (10YR 7/1) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to fragic properties:* 17 to 22 inches, at which depth the soil is 10 to 20 percent, by volume, compact and brittle

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

## Soil Survey of Wayne County, Mississippi

### *A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 to 3  
Texture—fine sandy loam

### *Ap horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4. In some pedons the Ap horizon is a blend of material from the A and E horizons.  
Texture—fine sandy loam

### *E horizon (where present):*

Color if not plowed into the Ap horizon—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4  
Texture—fine sandy loam

### *BE horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 4 to 8  
Texture—fine sandy loam or loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

### *Bt horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8; or a mixed matrix in shades of brown and gray  
Texture—loam or sandy clay loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

### *Btg horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2  
Texture—loam or sandy clay loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

### *Btxg horizon:*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2  
Texture—loam or sandy clay loam

### *Btx horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 2 to 4; or multicolored in shades of red, yellow, gray, and brown  
Texture—loam, sandy clay loam, or clay loam  
Redoximorphic features—clay and iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

### *BC horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2  
Texture—loam, sandy clay loam, or clay loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Rattlesnake Forks Series**

*Depth class:* Very deep

*Drainage class:* Excessively drained

*Permeability:* Moderately rapid

*Parent material:* Sandy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Shoulder slopes and toeslopes

*Slope:* 8 to 35 percent

*Taxonomic classification:* Thermic, coated Lamellic Quartzipsamments

### ***Commonly Associated Soils***

The Rattlesnake Forks series is commonly associated with Maubila, Olla, and Wadley soils.

- The Maubila soils have a clayey control section and are in positions similar to those of the Rattlesnake Forks soils or lower.
- The fine-loamy Olla soils are on the less convex slopes on ridgetops and shoulders.
- The Wadley soils have sandy surface and subsurface layers with a combined thickness of 40 to 80 inches thick and are in positions similar to those of the Rattlesnake Forks soils.

### ***Typical Pedon***

Rattlesnake Forks loamy sand, 8 to 25 percent slopes; in a wooded area about 2 miles southeast of Charity Chapel in Washington County, Alabama; SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 2, T. 2 N., R. 1 W.; lat. 31 degrees 9 minutes 3.9 seconds N. and long. 88 degrees 10 minutes 21.2 seconds W.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) loamy sand; weak fine granular structure; very friable; many fine and medium roots; very strongly acid; abrupt smooth boundary.

Bw1—6 to 21 inches; yellowish brown (10YR 5/6) loamy sand; weak fine granular structure; very friable; common fine, medium, and coarse roots; very strongly acid; gradual wavy boundary.

Bw2—21 to 50 inches; yellowish brown (10YR 5/8) loamy sand; weak fine granular structure; very friable; common fine and medium roots; very strongly acid; clear wavy boundary.

E—50 to 55 inches; strong brown (7.5YR 5/6) sand; single grain; loose; common very pale brown (10YR 7/4) streaks; many uncoated sand grains; few fine and medium roots; extremely acid; clear wavy boundary.

E&Bt—55 to 80 inches; reddish yellow (7.5YR 6/6) sand (E); single grain; loose; yellowish red (5YR 5/8) loamy sand lamellae (Bt) 2 millimeters thick having a weak fine granular structure; sand grains in lamellae are coated; individual lamellae are discontinuous in length; extremely acid.

### ***Range in Characteristics***

*Thickness of the sand:* 80 inches or more

*Reaction:* Very strongly acid or strongly acid in the A and Bw horizons and extremely acid to strongly acid in the E, E&Bt, and C horizons

*Depth to lamellae:* 40 to 78 inches, most commonly 50 to 70 inches

*Cumulative thickness of lamellae:* 1 to 15 centimeters

*Content of silt plus clay in the 10- to 40-inch control section:* 10 to 15 percent

#### ***A or Ap horizon:***

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 4

Texture—sand, fine sand, or loamy sand

#### ***Bw horizon:***

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—loamy sand or loamy fine sand

#### ***E horizon (where present):***

Color—hue of 5YR to 2.5Y, value of 5 to 8, and chroma of 3 to 8

Streaks and pockets of uncoated sand grains—none to many

Texture—sand or fine sand

*E part of the E&Bt horizon:*

Color—hue of 5YR to 2.5Y, value of 5 to 8, and chroma of 1 to 6

Texture—sand or fine sand, mostly uncoated

*Bt part (lamellae) of the E&Bt horizon:*

Color—hue of 2.5YR to 10YR, value of 5 to 7, and chroma of 4 to 8

Texture—loamy sand, loamy fine sand, fine sandy loam, or sandy loam. The lamellae range from 1 to 75 millimeters in thickness and from 1 centimeter to more than 1 meter in horizontal length.

*C horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 5 to 7, and chroma of 1 to 6

Texture—sand or fine sand

## **Ruston Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Broad ridges, shoulder slopes, and footslopes

*Slope:* 0 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Typic Paleudults

### ***Commonly Associated Soils***

The Ruston series is commonly associated with Brantley, Freest, Irvington, Lorman, Lucedale, Malbis, McLaurin, Okeelala, Shubuta, Smithdale, and Susquehanna soils.

- The Brantley soils are more clayey than the Ruston soils and are on steeper slopes.
- The moderately well drained Freest soils have a brown subsoil and are in positions that are similar to those of the Ruston soils or slightly lower.
- The moderately well drained Irvington soils have a brown subsoil with a fragipan in its lower part and are on narrow ridges that are slightly higher than the Ruston soils.
- The moderately well drained Lorman soils are clayey and are on side slopes.
- The Lucedale soils have a dark surface layer, have a dark red, fine-loamy subsoil, and are in the slightly higher summit positions.
- The well drained Malbis soils have a brown, fine-loamy subsoil and are in positions that are similar to those of the Ruston soils or slightly lower.
- The well drained McLaurin soils have a coarse-loamy argillic horizon and are in positions similar to those of the Ruston soils.
- The well drained Okeelala soils are on the steeper slopes.
- The well drained Shubuta soils are in toeslope positions.
- The well drained Smithdale soils are on side slopes.
- The somewhat poorly drained Susquehanna soils have a clayey argillic horizon and are in positions that are similar to those of the Ruston soils or slightly lower.

### ***Typical Pedon***

Ruston fine sandy loam, 2 to 5 percent slopes; about 11 miles northwest of Waynesboro in Wayne County; about 1,500 feet west and 1,500 feet south of the northeast corner of sec. 10, T. 9 N., R. 8 W.; USGS Eucutta topographic quadrangle; lat. 31 degrees 45 minutes 56.5 seconds N. and long. 88 degrees 46 minutes 47.5 seconds W.

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- Ap—0 to 4 inches; brown (10YR 4/3) fine sandy loam; weak fine and medium granular structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear smooth boundary.
- E—4 to 8 inches; yellowish brown (10YR 5/4) sandy loam; common medium distinct pale brown (10YR 6/3) streaks of fine sand; weak medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear wavy boundary.
- Bt1—8 to 16 inches; yellowish red (5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; friable; many fine and few medium and coarse roots; few fine pores; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Bt2—16 to 23 inches; yellowish red (5YR 5/8) sandy clay loam; weak coarse subangular blocky structure; friable; common fine and few medium roots; few fine pores; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Bt/E—23 to 44 inches; 85 percent yellowish red (5YR 5/6) sandy clay loam (Bt); weak coarse subangular blocky structure; friable; common fine roots; common distinct red (2.5YR 5/6) clay films on faces of peds; common light gray (10YR 7/1) clean sand coatings on faces of peds; few fine prominent brownish yellow (10YR 6/6) masses of iron accumulation that are relic redoximorphic features; 15 percent light yellowish brown (10YR 6/4) sandy loam (E'); slightly compact and brittle around the brownish areas; very strongly acid; gradual wavy boundary.
- Bt'1—44 to 62 inches; red (2.5YR 4/6) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; common distinct red (10R 4/6) clay films on faces of peds; few thin coatings of clean sand on faces of peds; less than 2 percent fine rounded quartz gravel; common fine prominent brownish yellow (10YR 6/8) and few fine prominent pale brown (10YR 6/3) relic redoximorphic features; very strongly acid; gradual wavy boundary.
- Bt'2—62 to 78 inches; red (10R 4/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; few thin coatings of clean sand on faces of peds; less than 2 percent fine rounded quartz gravel; common fine prominent brownish yellow (10YR 6/8) and few fine prominent pale brown (10YR 6/3) relic redoximorphic features; very strongly acid; gradual wavy boundary.
- Bt'3—78 to 84 inches; red (10R 4/8) sandy clay loam; weak coarse subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; less than 2 percent fine rounded quartz gravel; common coarse prominent brownish yellow (10YR 6/6) relic redoximorphic features; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 4, and chroma of 3 to 6; or in some unplowed areas where the horizon is less than 6 inches thick, hue of 10YR, value of 3, and chroma of 1 to 3

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6

Texture—fine sandy loam or sandy loam

*EB or BE horizon (where present):*

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—sandy clay loam, fine sandy loam, or sandy loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—clay loam, sandy clay loam, loam, fine sandy loam, or sandy loam

*Bt/E' horizon, Bt part:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—sandy clay loam, loam, fine sandy loam, or sandy loam

*Bt/E' horizon, E' part:*

Color—hue of 5YR to 10YR, value of 4 to 8, and chroma of 4 to 8

Extent—10 to 25 percent, by volume

Texture—sandy clay loam, loam, fine sandy loam, or sandy loam; almost stripped of clay

*B't horizon:*

Color—hue of 10R, 2.5YR, or 5YR, value of 3 to 5, and chroma of 4 to 8

Texture—sandy clay loam, loam, fine sandy loam, or sandy loam

## **Savannah Series**

*Depth class:* Very deep

*Drainage class:* Moderately well drained

*Permeability:* Moderate in Bt horizon and slow in Btx horizon

*Parent material:* Loamy marine and fluvial sediments

*Landscape:* Coastal Plain

*Landform:* Uplands and high stream terraces

*Landform position:* Undulating ridges and undulating stream terraces

*Slope:* 0 to 8 percent

*Taxonomic classification:* Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults

### **Commonly Associated Soils**

The Savannah series is commonly associated with Boswell, Freest, Harleston, Malbis, Prentiss, Quitman, Shubuta, Stough, and Susquehanna soils.

- The moderately well drained Boswell soils have a red, clayey argillic horizon and are on ridges and side slopes.
- The moderately well drained Freest soils have a fine-loamy argillic horizon over a clayey lower subsoil, do not have a fragipan, and are in the slightly higher positions.
- The moderately well drained Harleston soils are in the slightly lower terrace positions.
- The well drained Malbis soils have plinthite in the lower part of the subsoil and are in the higher positions.
- The moderate well drained Prentiss soils have a coarse-loamy argillic horizon over a fragipan and are in positions similar to those of the Savannah soils or slightly lower.
- The somewhat poorly drained Quitman soils have fragic properties and are in the lower positions that are subject to flooding.
- The well drained Shubuta soils have more clay than the Savannah soils and are in higher positions.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon with fragic properties and are in the lower positions that are subject to flooding.
- The Susquehanna soils are in a fine textural family and are in the slightly higher positions.

### **Typical Pedon**

Savannah fine sandy loam, 2 to 5 percent slopes; about 14 miles west-southwest of Waynesboro; 2,650 feet west and 2,550 feet north of the southeast corner of sec.

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26, T. 8 N., R. 9 W.; USGS Strenghtford topographic quadrangle; lat. 31 degrees 37 minutes 56.5 seconds N. and long. 88 degrees 51 minutes 45.1 seconds W.

- Ap—0 to 5 inches; brown (10YR 4/3) fine sandy loam; weak fine and medium granular structure; friable; many fine and common medium roots; strongly acid; clear smooth boundary.
- E—5 to 9 inches; brown (10YR 5/3) fine sandy loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; strongly acid; clear wavy boundary.
- BE—9 to 13 inches; yellowish brown (10YR 5/6) loam; weak fine and medium subangular blocky structure; friable; common fine and few medium roots; very strongly acid; gradual wavy boundary.
- Bt—13 to 22 inches; strong brown (7.5YR 5/6) loam; weak medium subangular blocky structure; friable; few fine and medium roots; few very fine pores or voids; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Btx1—22 to 29 inches; brownish yellow (10YR 6/8) loam; weak very coarse prismatic structure parting to moderate medium and coarse subangular blocky; firm; few fine roots; common faint clay films on faces of peds; brittle in about 40 percent of the volume; few fine pores; common medium distinct reddish yellow (7.5YR 7/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine distinct pale brown (10YR 6/3) irregularly shaped iron depletions with clear boundaries throughout the matrix; very strongly acid; gradual wavy boundary.
- Btx2—29 to 37 inches; brownish yellow (10YR 6/8) loam; weak very coarse prismatic structure parting to moderate medium or coarse subangular blocky; firm; few faint clay films on faces of peds; brittle in about 60 percent of the volume; few fine pores; common fine and medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Btx3—37 to 49 inches; brownish yellow (10YR 6/8) loam; weak very coarse prismatic structure parting to moderate medium and coarse subangular blocky; firm; common faint clay films on faces of peds; common distinct skeletalans on vertical faces of prisms; brittle and compact in about 70 percent of the volume; few fine pores; common medium distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine distinct pale brown (10YR 6/3) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Btx4—49 to 55 inches; brownish yellow (10YR 6/6) loam; weak very coarse prismatic structure parting to moderate medium and coarse subangular blocky; firm; common faint clay films on faces of peds; few distinct skeletalans on vertical faces of prisms; brittle in about 35 percent of the volume; few fine pores; common fine distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- BC—55 to 76 inches; brownish yellow (10YR 6/6) clay loam; moderate fine, medium, and coarse subangular blocky structure; slightly firm; few fine pores; many fine and medium prominent red (2.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine and medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- C—76 to 85 inches; light olive brown (2.5Y 5/6) sandy clay loam; massive; friable; common fine distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine and medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 55 to more than 80 inches

*Depth to contrasting soil material:* Fragipan at 16 to 35 inches. The fragipan has gray vertical seams that form a roughly polygonal pattern of prisms. The matrix of the prisms is firm or very firm when dry and brittle when moist in the major part of the fragipan.

*Reaction:* Very strongly acid or strongly acid in all horizons, except where lime has been applied

*Ap or A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4; or hue of 10YR, value of 5, and chroma of 3.

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4

Texture—loam or fine sandy loam

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or loam

*Btx horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8; multicolored in shades of red, yellow, gray, and brown; or, in the lower part, a gray matrix

Texture—sandy clay loam, loam, fine sandy loam, or sandy loam

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*B<sup>t</sup> or BC horizon (where present):*

Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8; multicolored in shades of red, yellow, gray, and brown; or a gray matrix

Texture—sandy clay loam, clay loam, loam, fine sandy loam, or sandy loam

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*C horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 to 8; multicolored in shades of red, yellow, gray, and brown; or a gray matrix

Texture—sandy clay loam, clay loam, loam, fine sandy loam, or sandy loam

Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

## **Shubuta Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderately slow

*Parent material:* Thinly bedded clayey, sandy, and loamy marine sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits and shoulder slopes

*Slope:* 2 to 5 percent

*Taxonomic classification:* Fine, mixed, semiactive, thermic Typic Paleudults

### ***Commonly Associated Soils***

The Shubuta series is commonly associated with Boswell, Brantley, Okeelala, Ruston, and Savannah soils.

- The moderately well drained Boswell soils have vertic properties and are on the smoother, broader ridges and toeslopes.
- The Brantley soils are on side slopes.
- The Okeelala soils have a fine-loamy argillic horizon and are on side slopes.
- The Ruston soils are fine-loamy, have a bisequum, and are in positions similar to those of the Shubuta soils or slightly higher on ridges.
- The moderately well drained Savannah soils have a fine-loamy control section with a fragipan, have a yellowish brown matrix, and are in the lower positions.

### ***Typical Pedon***

Shubuta fine sandy loam, 1 to 5 percent slopes; in a wooded area about 16 miles northwest of Waynesboro; 2,450 feet east and 350 feet north of the southwest corner of sec. 21, T. 10 N., R. 9 W.; USGS Heidelberg SW topographic quadrangle; lat. 31 degrees 48 minutes 49.9 seconds N. and long. 88 degrees 54 minutes 9.3 seconds W.

A—0 to 2 inches; brown (10YR 4/3) fine sandy loam; weak medium granular structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear smooth boundary.

E—2 to 7 inches; brown (10YR 5/3) fine sandy loam; weak medium subangular blocky structure; friable; many fine, common medium, and few coarse roots; very strongly acid; clear wavy boundary.

BE—7 to 11 inches; red (2.5YR 5/6) clay loam; weak medium subangular blocky structure; friable; many fine and few medium and coarse roots; very strongly acid; clear wavy boundary.

Bt1—11 to 18 inches; red (2.5YR 4/6) clay loam; moderate coarse subangular blocky structure; firm, slightly plastic and slightly sticky; common fine and few medium and coarse roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—18 to 27 inches; red (2.5YR 4/6) clay loam; moderate coarse subangular blocky structure; firm, plastic and slightly sticky; few fine and coarse roots; common faint clay films on faces of peds; common medium distinct strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Bt3—27 to 36 inches; red (2.5YR 4/6) clay loam; moderate coarse prismatic structure parting to moderate medium angular blocky; firm, plastic and slightly sticky; few fine and coarse roots; common faint clay films on faces of peds; many coarse prominent strong brown (7.5YR 5/6) and common medium and coarse reddish yellow (7.5YR 6/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Bt4—36 to 49 inches; strong brown (7.5YR 5/6) clay loam; moderate coarse prismatic structure parting to moderate medium angular blocky; firm, plastic and sticky; few fine and coarse roots; common faint clay films on faces of peds; many coarse prominent red (2.5YR 4/8) and common fine prominent pale brown (10YR 6/3) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; few medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

Bt5—49 to 57 inches; strong brown (7.5YR 5/8) clay loam; moderate coarse prismatic structure parting to moderate medium angular blocky; firm; few fine roots; few faint clay films on faces of peds; many coarse prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; common medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

BC—57 to 65 inches; strong brown (7.5YR 5/8) fine sandy loam; weak very coarse subangular blocky structure; friable; few fine roots; many coarse prominent red (2.5YR 4/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; common medium prominent light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.

C—65 to 80 inches; red (2.5YR 4/8) stratified layers of sandy clay loam, sandy loam, and clay; weak medium platy structure; friable; many medium prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; common fine prominent light gray (10YR 7/2) clay platy shaped iron depletions with clear boundaries within the matrix; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Strongly acid or very strongly acid throughout, except where lime has been applied

*A horizon:*

Color—hue of 10YR, value of 3 or 4, and chroma of 2 to 4

Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 3 or 4

Texture—fine sandy loam

*BE horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy clay loam or clay loam

*Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 4 to 8; or, in the lower part, hue of 7.5YR, value of 4 to 6, and chroma of 4 to 8

Texture—silty clay loam, clay loam, or sandy loam

Redoximorphic features—iron depletions in shades of gray below a depth of 30 inches; iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8; or multicolored in shades of red, yellow, gray, and brown

Texture—sandy clay loam, silty clay loam, or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, olive, and brown

*C horizon:*

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8; a gray matrix; or multicolored in shades of red, yellow, gray, and brown

Texture—stratified fine sandy loam, sandy clay loam, loam, clay loam, or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, olive, and brown

## **Smithdale Series**

*Depth class:* Very deep

*Drainage class:* Well drained

*Permeability:* Moderate

*Parent material:* Loamy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Side slopes and shoulder slopes

*Slope:* 5 to 35 percent

*Taxonomic classification:* Fine-loamy, siliceous, subactive, thermic Typic Hapludults

### ***Commonly Associated Soils***

The Smithdale series is commonly associated with Alaga, Benndale, Boswell, Boykin, Brantley, Heidel, Irvington, Leaf, Lorman, Lucedale, Luverne, Malbis, McLaurin, Okeelala, Olla, Petal, Ruston, Susquehanna, and Wadley soils.

- The somewhat excessively drained Alaga soils are in the lower positions closer to streams.
- The Benndale soils have a browner subsoil than the Smithdale soils and are on lower slopes.
- The moderately well drained Boswell soils have a red, clayey argillic horizon and are on ridges and side slopes.
- The Boykin soils have a browner subsoil than the Smithdale soils and are in less sloping positions.
- The Brantley soils are in positions similar to those of the Smithdale soils but are more clayey.
- The Heidel soils are in positions similar to those of the Smithdale soils but are coarse loamy.
- The Irvington soils have a brownish fragipan and are on ridgetops.
- The poorly drained Leaf soils are in the lower positions.
- The Lorman soils have a clayey argillic horizon and are in positions similar to those of the Smithdale soils.
- The dark red Lucedale soils are on low, broad and nearly level ridges.
- The clayey Luverne soils are in positions similar to those of the Smithdale soils on side slopes.
- The well drained Malbis soils are on the lower ridgetops.
- The McLaurin soils have a coarser texture than the Smithdale soils and are in the lower, gently sloping positions.
- The well drained Okeelala soils are on the broader side slopes.
- The Olla soils are on ridges and the upper parts of side slopes.
- The moderately well drained Petal soils are on the less sloping parts of ridges and side slopes.
- The Ruston soils have a bisequal profile and are on broad ridgetops and summits.
- The Susquehanna soils are in a fine textural family and are in the lesser sloping positions.
- The Wadley soils are sandy, have a perched water table, and are on ridges and side slopes.

### ***Typical Pedon***

Smithdale fine sandy loam, 15 to 35 percent slopes; about 7 miles northeast of Waynesboro; 1,300 feet north and 1,900 feet east of the southwest corner of sec. 6, T. 9 N., R. 6 W.; USGS Shubuta topographic quadrangle; lat. 31 degrees 46 minutes 25 seconds N. and long. 88 degrees 37 minutes 52 seconds W.

A—0 to 3 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many fine and common medium roots; very strongly acid; clear smooth boundary.

E—3 to 12 inches; yellowish brown (10YR 5/4) fine sandy loam; weak coarse subangular blocky structure; very friable; common fine and few medium roots; very strongly acid; clear wavy boundary.

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- BE—12 to 16 inches; yellowish red (5YR 4/8) fine sandy loam; weak fine subangular blocky structure; friable; few fine roots; very strongly acid; clear wavy boundary.
- Bt1—16 to 26 inches; red (2.5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Bt2—26 to 36 inches; red (2.5YR 4/8) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Bt3—36 to 42 inches; red (2.5YR 4/8) loam; weak medium subangular blocky structure; friable; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
- Bt4—42 to 49 inches; red (2.5YR 4/6) fine sandy loam; weak medium subangular blocky structure; friable; sand grains bridged and coated with clay; common medium and coarse distinct yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; the masses of iron accumulation are relict redoximorphic features; very strongly acid; gradual wavy boundary.
- Bt5—49 to 57 inches; red (2.5YR 5/8) sandy loam; weak medium subangular blocky structure; friable; sand grains bridged and coated with clay; common medium and coarse distinct yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; the masses of iron accumulation are relict redoximorphic features; very strongly acid; gradual wavy boundary.
- BC—57 to 71 inches; red (2.5YR 5/8) sandy loam; weak coarse subangular blocky structure; friable; few fine flakes of mica; very strongly acid; gradual wavy boundary.
- C—71 to 80 inches; red (2.5YR 5/8) loamy sand; massive; loose; few fine flakes of mica; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Content and size of rock fragments:* Some pedons have up to 10 percent quartz or ironstone pebbles

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

#### *A horizon:*

Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 1 to 4

Texture—fine sandy loam

#### *Ap horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 2 to 4

Texture—fine sandy loam

#### *E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 8

Texture—fine sandy loam or sandy loam

#### *EB or BE horizon (where present):*

Color—hue of 7.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—fine sandy loam, sandy loam, or loam

#### *Bt horizon:*

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 to 8

Texture—fine sandy loam, clay loam, sandy clay loam, or loam in the upper part and sandy loam or loam in the lower part

Redoximorphic features (where present)—none to common masses of iron accumulation in shades of red and brown. The masses are relict redoximorphic features.

*BC or C horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8

Texture—dominantly sandy loam or loamy sand; strata of finer or coarser textured materials in many pedons

## **Stough Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Moderately slow

*Parent material:* Loamy fluvial sediments

*Landscape:* Coastal Plain

*Landform:* Stream terraces

*Landform position:* Planar to slightly convex slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Coarse-loamy, siliceous, semiactive, thermic Fragiaguidic Paleudults

### **Commonly Associated Soils**

The Stough series is commonly associated with Bibb, Harleston, Iuka, Latonia, Leaf, Prentiss, Quitman, Savannah, and Trebloc soils.

- The poorly drained Bibb soils are stratified in the lower part of the subsoil and are on flood plains.
- The moderately well drained Harleston soils are in the slightly higher terrace positions.
- The moderately well drained Iuka soils are on natural levees of flood plains.
- The well drained Latonia soils are in the lower terrace positions.
- The poorly drained Leaf soils are in the lower positions.
- The moderately well drained Prentiss soils have a fragipan and are in the higher positions.
- The somewhat poorly drained Quitman soils are in positions similar to those of the Stough soils but have a fine-loamy argillic horizon with less fragic properties.
- The moderately well drained Savannah soils have a fine-loamy argillic horizon with a fragipan and are in the higher positions.
- The poorly drained Trebloc soils have a fine-silty argillic horizon and are in the slightly lower, ponded positions.

### **Typical Pedon**

Stough fine sandy loam, 0 to 2 percent slopes, occasionally flooded; in a wooded area about 10 miles south of Waynesboro; 2,400 feet west and 300 feet south of the northeast corner of sec. 1, T. 6 N., R. 7 W.; USGS Clara topographic quadrangle; lat. 31 degrees 31 minutes 18.9 seconds N. and long. 88 degrees 38 minutes 47.7 seconds W.

Ap1—0 to 3 inches; brown (10YR 4/3) fine sandy loam; weak fine granular structure; friable; many fine and medium and common coarse roots; common fine charcoal fragments; strongly acid; clear smooth boundary.

Ap2—3 to 7 inches; brown (10YR 4/3) fine sandy loam; common medium spots of yellow (10YR 7/6) fine sandy loam; weak coarse subangular blocky structure; friable; many fine and medium and few coarse roots; common fine charcoal fragments; very strongly acid; clear smooth boundary.

## Soil Survey of Wayne County, Mississippi

- Bt1—7 to 13 inches; brownish yellow (10YR 6/6) fine sandy loam; weak coarse subangular blocky structure; friable; common fine and medium roots; sand grains bridged and coated with clay; common fine charcoal fragments; few fine distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bt2—13 to 27 inches; yellowish brown (10YR 5/6) fine sandy loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; friable, 25 percent compact and brittle; common fine and medium roots; sand grains bridged and coated with clay; common fine charcoal fragments on root channels and faces of peds; light gray (10YR 7/1) fine sandy loam along vertical prism faces up to 1 inch wide; few fine distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; few thin streaks of clean sand; very strongly acid; gradual wavy boundary.
- Btx1—27 to 34 inches; brownish yellow (10YR 6/6) fine sandy loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; firm, 45 percent compact and brittle; few faint clay films on vertical faces of prisms; few fine roots along prism seams; few fine vesicular pores; light gray (10YR 7/1) fine sandy loam along vertical prism faces up to 1 inch wide; common medium distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; few thin streaks of clean sand; very strongly acid; gradual wavy boundary.
- Btx2—34 to 40 inches; brownish yellow (10YR 6/6) fine sandy loam; weak very coarse and coarse prismatic structure parting to weak coarse subangular blocky; firm, 50 percent compact and brittle; few faint clay films on vertical faces of prisms; light gray (10YR 7/1) fine sandy loam along vertical prism faces up to 1 inch wide; few fine roots along seams; few fine vesicular pores; many coarse distinct strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many medium distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions on faces of peds with clear boundaries; few thin streaks of clean sand; very strongly acid; clear wavy boundary.
- Btx1—40 to 56 inches; light brownish gray (10YR 6/2) loam; weak very coarse prismatic structure parting to weak coarse subangular blocky; firm, 40 percent compact and brittle; few faint clay films on vertical faces of prisms and peds; few fine roots along seams; few fine vesicular pores; light gray (10YR 7/1) fine sandy loam along vertical prism faces up to 1 inch wide; common medium prominent strong brown (7.5YR 5/8) and few fine distinct brownish yellow (10YR 6/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few thin streaks of clean sand; very strongly acid; gradual wavy boundary.
- Btg—56 to 81 inches; light brownish gray (10YR 6/2) clay loam; moderate coarse prismatic structure parting to moderate medium subangular blocky; firm; few faint clay films on vertical faces of prisms and peds; few fine roots in seams; few fine vesicular pores; light gray (10YR 7/1) fine sandy loam along vertical prism faces up to 1 inch wide; many medium prominent strong brown (7.5YR 5/8) and common medium distinct yellow (10YR 7/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few thin streaks of clean sand; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to bedrock:* More than 80 inches

## Soil Survey of Wayne County, Mississippi

*Content of concretions:* None to many manganese concretions in the Bt horizon  
*Reaction:* Very strongly acid or strongly acid, except where lime has been applied

*A horizon (where present):*

Color—hue of 10YR, value of 3 or 4, and chroma of 1 or 2  
Texture—fine sandy loam

*Ap horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4  
Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 2 to 4  
Texture—fine sandy loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of brown

*EB or BE horizon (where present):*

Color—hue of 10YR, value of 5 or 6, and chroma of 4 to 6  
Texture—fine sandy loam or loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of brown

*Bt horizon:*

Color—hue of 10YR, value of 5 to 7, and chroma of 4 to 8; or multicolored in shades of gray and brown  
Texture—fine sandy loam, sandy loam, or loam in the upper part and sandy loam or sandy clay loam in lower part  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of brown and red

*Btx and Btg horizons:*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 8; multicolored in shades of red, gray, yellow, and brown; or, in the lower part, a gray matrix  
Texture—fine sandy loam, sandy loam, or loam in the upper part and loam, sandy clay loam, or clay loam in lower part  
Redoximorphic features—iron or clay depletions in shades of gray and iron accumulations in shades of red and brown

*BC horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 1 to 2; or multicolored in shades of red, gray, and brown  
Texture—fine sand, loamy fine sand, fine sandy loam, sandy clay loam, or clay loam  
Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red and brown

## Suggsville Series

*Depth class:* Deep

*Drainage class:* Well drained

*Permeability:* Very slow

*Parent material:* Clayey sediments and underlying interbedded limestone and chalk

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Summits, side slopes, and footslopes

*Slope:* 2 to 35 percent

*Taxonomic classification:* Very fine, smectitic, thermic Chromic Dystruderts

### ***Commonly Associated Soils***

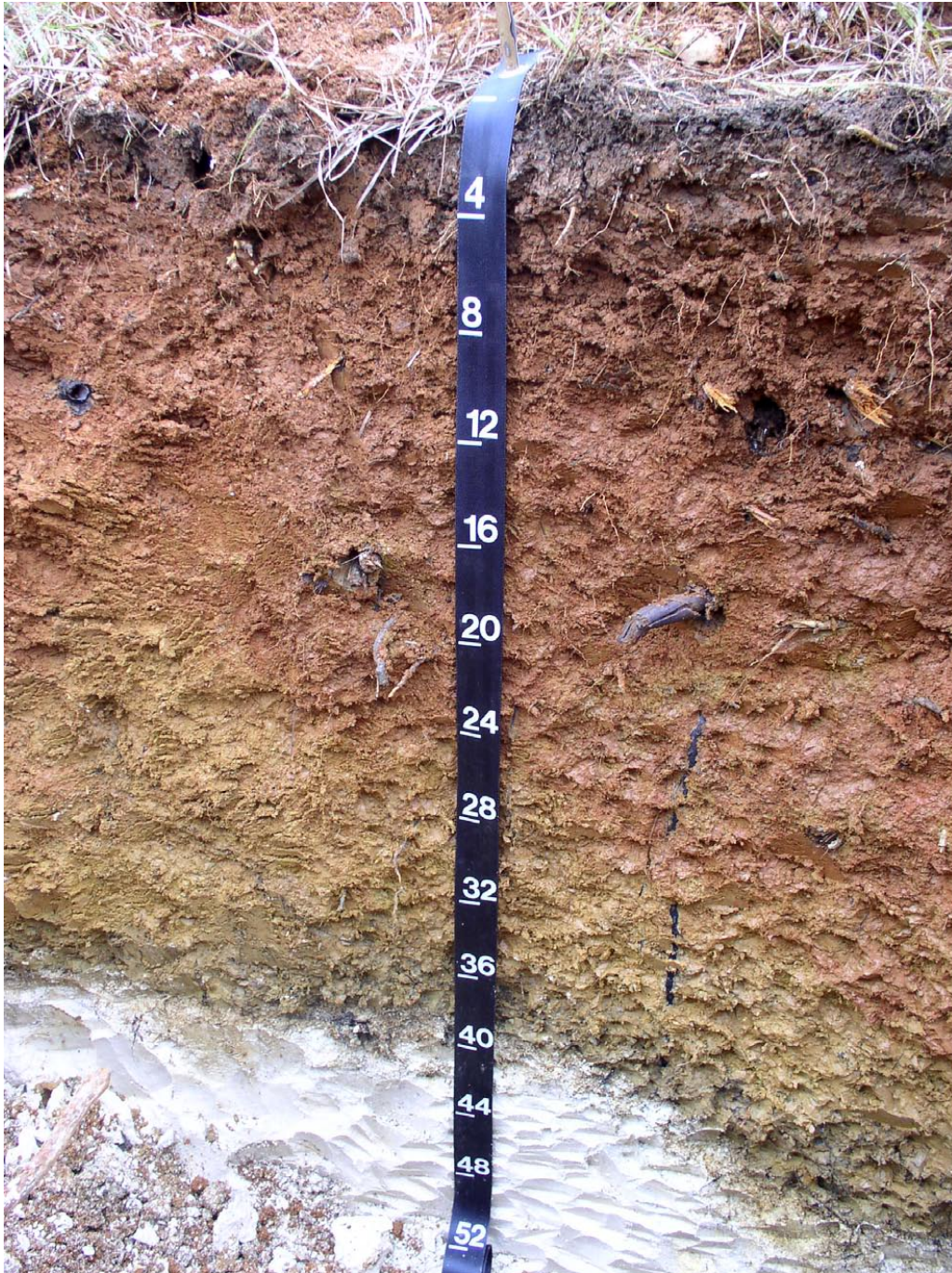
The Suggsville series is commonly associated with Brantley, Lorman, Okeelala, Prim, and Watsonia soils.

- The very deep Brantley and Okeelala soils are on ridges and side slopes at higher elevations than the Suggsville soils.
- The very deep Lorman soils are on side slopes and ridges at lower elevations than the Suggsville soils.
- The shallow Prim soils are in positions similar to those of the Suggsville soils.
- The Watsonia soils are shallow to chalk and are on ridges and upper side slopes.

### ***Typical Pedon***

Suggsville clay (fig. 12), in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes; about 3 miles southwest of Suggsville in Clarke County, Alabama; 2,000 feet north and 900 feet west of the southeast corner of sec. 30, T. 7 N., R. 4 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 32 minutes 42 seconds N. and long. 87 degrees 42 minutes 14 seconds W.

- A—0 to 1 inch; very dark brown (10YR 2/2) clay; weak fine subangular blocky structure; firm; many very fine and fine and few medium and coarse roots; very strongly acid; clear wavy boundary.
- BA—1 to 4 inches; 60 percent brown (7.5YR 4/3) and 40 percent reddish brown (5YR 4/4) clay; coarse clods parting to moderate medium subangular blocky structure; very firm; common very fine, fine, medium, and coarse roots; very strongly acid; clear wavy boundary.
- Bt—4 to 11 inches; yellowish red (5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; common fine, medium, and coarse roots; few faint clay films on faces of peds; common pressure faces; very strongly acid; clear wavy boundary.
- Btss1—11 to 21 inches; red (2.5YR 4/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine, medium, and coarse roots; few faint clay films on faces of peds; many pressure faces; common large intersecting slickensides that have distinct polished and slightly grooved surfaces; few fine rounded pebbles of quartzite; very strongly acid; clear wavy boundary.
- Btss2—21 to 26 inches; 60 percent strong brown (7.5YR 5/8) and 40 percent yellowish red (5YR 5/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few very fine and fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and slightly grooved surfaces; few fine and medium black (10YR 2/1) stains and soft masses of iron and manganese oxides; very strongly acid; clear wavy boundary.
- Btss3—26 to 35 inches; strong brown (7.5YR 5/6) clay; moderate coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and grooved surfaces; many fine and medium black (10YR 2/1) stains and soft masses of iron and manganese oxides; few fine distinct yellowish red (5YR 4/6) masses of iron accumulation; very strongly acid; clear wavy boundary.
- Btss4—35 to 42 inches; strong brown (7.5YR 5/6) clay; weak coarse angular blocky structure parting to strong fine angular blocky; very firm; few fine roots; few faint clay films on faces of peds; common large intersecting slickensides that have distinct polished and grooved surfaces; many fine and medium dark brown (7.5YR 3/2) stains and soft masses of iron and manganese oxides; few fine distinct yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; abrupt irregular boundary.



**Figure 12.—Profile of a Suggsville soil in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes.**

2Cr—42 to 80 inches; interbedded light gray (5Y 7/2) limestone and chalk; massive; extremely firm; can be excavated with light mechanical equipment and be cut by hand tools with difficulty; thick clay films on vertical surfaces in fractures; violently effervescent; moderately alkaline.

***Range in Characteristics***

*Depth to bedrock:* 40 to 60 inches

*Depth to secondary carbonates:* 30 to 50 inches

*Content and size of rock fragments:* Less than 10 percent rounded pebbles of quartzite throughout the profile

*A or Ap horizon:*

Color—hue of 5YR to 10YR, value of 2 or 3, and chroma of 1 to 3

Reaction—very strongly acid or strongly acid, except where lime has been applied

Texture—Clay

*BA horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 3 or 4, and chroma of 3 to 6

Texture—clay loam, silty clay loam, clay, or silty clay

Reaction—very strongly acid or strongly acid

*Bt horizon (where present):*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—clay

Reaction—very strongly acid

*Btss horizon, upper part:*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8

Texture—clay

Reaction—very strongly acid or strongly acid

*Btss horizon, lower part:*

Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 4 to 8; or no dominant matrix color and multicolored in shades of red, brown, and gray

Texture—clay or silty clay

Reaction—very strongly acid to slightly alkaline

*2Cr horizon:*

Type of bedrock—interbedded limestone and chalk; massive or platy rock structure

Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

## Sumter Series

*Depth class:* Moderately deep

*Drainage class:* Well drained

*Permeability:* Slow

*Parent material:* Alkaline, loamy and clayey materials that weathered from soft limestone (chalk)

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Ridgetops and side slopes

*Slope:* 3 to 8 percent

*Taxonomic classification:* Fine-silty, carbonatic, thermic Rendollic Eutrudepts

### Commonly Associated Soils

The Sumter series is commonly associated with Boswell, Brantley, Leeper, and Maytag soils.

- The Boswell soils are in higher landscape positions than those of the Sumter soils, are acid throughout, and do not have bedrock within a depth of 40 inches.
- The Brantley soils are acid throughout and are commonly in lower positions than those of the Sumter soils.
- The somewhat poorly drained Leeper soils are on flood plains.
- The Maytag soils are in landscape positions similar to those of the Sumter soils but do not have bedrock within a depth of 40 inches.

***Typical Pedon***

Sumter silty clay loam, in an area of Sumter-Maytag complex, 3 to 8 percent slopes, eroded; about 2 miles southeast of Isney in Choctaw County, Alabama; 1,500 feet south and 500 feet east of the northwest corner of sec. 7, T. 9 N., R. 4 W.

Ap—0 to 5 inches; dark grayish brown (10YR 4/2) silty clay loam; strong fine granular structure; firm; common fine and medium roots; strongly effervescent; moderately alkaline; abrupt smooth boundary.

Bk1—5 to 10 inches; light yellowish brown (2.5Y 6/3) silty clay; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; common fine roots; common fine and medium soft masses and few fine nodules of calcium carbonate; strongly effervescent; moderately alkaline; clear wavy boundary.

Bk2—10 to 17 inches; pale yellow (2.5Y 7/3) silty clay; moderate coarse subangular blocky structure; firm; few fine roots; common fine and medium soft masses and few medium nodules of calcium carbonate; common fine and medium distinct brownish yellow (10YR 6/6) and light yellowish brown (2.5Y 6/4) masses of iron accumulation; strongly effervescent; moderately alkaline; clear wavy boundary.

Bk3—17 to 27 inches; light gray (2.5Y 7/2) clay; weak coarse subangular blocky structure; firm; common fine and medium soft masses and many medium nodules of calcium carbonate; common medium and coarse distinct light yellowish brown (2.5Y 6/4) and few medium prominent brownish yellow (10YR 6/8) masses of iron accumulation; violently effervescent; moderately alkaline; gradual wavy boundary.

Cr—27 to 80 inches; light brownish gray (2.5Y 6/2) chalk; moderate thick platy rock structure; very firm; violently effervescent; moderately alkaline.

***Range in Characteristics***

*Thickness of the solum:* 20 to 40 inches

*Depth to soft bedrock:* 20 to 40 inches

*Reaction:* Slightly alkaline or moderately alkaline throughout

***Ap horizon:***

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 or 2

Texture—silty clay loam

***Bk horizon, upper part:***

Color—hue of 10YR or 2.5Y, value of 5 to 7, and chroma of 3 to 6

Texture—clay, silty clay, or silty clay loam

Redoximorphic features—none to common masses of iron accumulation in shades of yellow, brown, and olive

Soft masses and nodules of calcium carbonate—few to many

***Bk horizon, lower part:***

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 2 to 6

Texture—clay, silty clay, or silty clay loam

Redoximorphic features—few to many masses of iron accumulation in shades of yellow, brown, and olive

Soft masses and nodules of calcium carbonate—few to many

***Cr horizon:***

Type of bedrock—chalk or weathered limestone; massive or platy rock structure

Other—can be cut with hand tools with difficulty and is rippable by light equipment

**Susquehanna Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Parent material:* Clayey sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Ridges

*Slope:* 1 to 8 percent

*Taxonomic classification:* Fine, smectitic, thermic Vertic Paleudalfs

### ***Commonly Associated Soils***

The Susquehanna series is commonly associated with Benndale, Freest, Lorman, Petal, Ruston, Savannah, and Smithdale soils.

- The well drained Benndale soils have a coarse-loamy argillic horizon and are on ridges and side slopes.
- The moderately well drained Freest soils have a fine-loamy particle-size control section and are in the lower positions.
- The moderately well drained Lorman soils have vertic properties and are on side slopes.
- The Petal soils are in positions similar to those of the Susquehanna soils on ridgetops but have less clay.
- The well drained Ruston soils have a fine-loamy control section and are on ridges and shoulder slopes.
- The moderately well drained Savannah soils have a fragipan, have a fine-loamy control section, and are on the slightly higher ridges.
- The well drained Smithdale soils have a fine-loamy argillic horizon and are on side slopes.

### ***Typical Pedon***

Susquehanna fine sandy loam, 1 to 8 percent slopes; about 12 miles south of Waynesboro; 1,000 feet east and 1,900 feet south of the northwest corner of sec. 30, T. 6 N., R. 7 W.; USGS Piave topographic quadrangle; lat. 31 degrees 27 minutes 30.5 seconds N. and long. 88 degrees 44 minutes 11.8 seconds W.

Ap—0 to 3 inches; brown (10YR 4/3) fine sandy loam; weak fine and medium granular structure; friable; many fine and very fine and common medium to coarse roots throughout; very strongly acid; clear smooth boundary.

E—3 to 9 inches; brown (10YR 5/3) fine sandy loam; weak fine and medium subangular blocky structure; friable; many fine and few medium to coarse roots; very strongly acid; clear wavy boundary.

Bt—9 to 15 inches; red (2.5YR 4/6) clay; weak medium and coarse prismatic structure parting to strong fine and medium subangular blocky; firm; few fine to coarse roots; common fine prominent grayish brown (10YR 5/2) irregularly shaped iron depletions with clear boundaries in the matrix; many distinct reddish brown (5YR 5/4) clay films on all faces of peds; very strongly acid; gradual wavy boundary.

Btg1—15 to 21 inches; light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to strong fine and medium angular and subangular blocky; firm, slightly sticky and slightly plastic; few fine and very fine roots throughout; many fine and coarse distinct brown (7.5YR 5/4) and many fine to coarse red (2.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common distinct reddish brown (5YR 5/4) pressure faces on peds; very strongly acid; gradual wavy boundary.

Btg2—21 to 30 inches; light brownish gray (10YR 6/2) clay; coarse wedge-shaped aggregates that part to moderate fine and medium angular blocky structure; firm, very sticky and very plastic; few fine and very fine roots; many fine and medium prominent red (10R 4/6), strong brown (7.5YR 5/8), and yellowish red (5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix;

- common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of  $\frac{1}{4}$  to  $\frac{1}{2}$  inch; common distinct light gray (10YR 7/2) skeletons on faces of slickensides; very strongly acid; gradual wavy boundary.
- Btg3—30 to 50 inches; light brownish gray (2.5Y 6/2) clay; coarse wedge-shaped aggregates that part to moderate fine and medium angular blocky structure; firm, sticky and plastic; common fine and medium prominent strong brown (7.5YR 5/6) and few fine and medium prominent yellowish red (5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of  $\frac{1}{4}$  to  $\frac{1}{2}$  inch; common distinct light gray (10YR 7/2) skeletons on faces of slickensides; very strongly acid; gradual wavy boundary.
- Btg4—50 to 57 inches; light brownish gray (2.5Y 6/2) clay; coarse wedge-shaped aggregates that part to moderate fine and medium angular blocky structure; firm, slightly sticky and plastic; many fine to coarse prominent yellowish red (5YR 5/6), many fine and medium prominent strong brown (7.5YR 5/8), and few fine prominent red (2.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common distinct polished and grooved intersecting slickensides with valley widths of 3 to 6 inches and depths of  $\frac{1}{4}$  to  $\frac{1}{2}$  inch; common faint clay films on all faces of peds; common distinct light gray (10YR 7/2) skeletons on faces of slickensides; very strongly acid; gradual wavy boundary.
- 2Bt—57 to 70 inches; pale olive (5Y 6/3) clay; moderate fine and medium subangular and angular blocky structure; firm, slightly sticky and plastic; common fine and medium prominent strong brown (7.5YR 5/6) and few fine prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many medium distinct light gray (2.5Y 7/2) irregularly shaped iron depletions with clear boundaries in the matrix; common faint clay films on all faces of peds; very strongly acid; gradual wavy boundary.
- C—70 to 90 inches; light olive gray (5Y 6/2) clay; massive; firm, sticky and plastic; many fine to coarse prominent strong brown (7.5YR 4/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine to coarse distinct pale olive (5Y 6/3) irregularly shaped iron depletions with clear boundaries in the matrix; common faint clay films on all faces of peds; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* 40 to 60 inches

*Reaction:* Very strongly acid or strongly acid in the A and Bt horizons, except where lime has been applied, and very strongly acid to mildly alkaline in the BC and C horizons

*A horizon (where present):*

Color—hue of 10YR, value of 3 to 5, and chroma of 1 to 3  
Texture—fine sandy loam

*Ap horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 6  
Texture—fine sandy loam

*E horizon (where present):*

Color—hue of 10YR, value of 4 to 6, and chroma of 2 to 4  
Texture—fine sandy loam or sandy loam

*Bt horizon:*

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 2 to 8  
Texture—silty clay or clay

## Soil Survey of Wayne County, Mississippi

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of brown and yellow

**Btg horizon:**

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 1 or 2

Texture—silty clay or clay

**2Bt horizon:**

Color—hue of 2.5Y to 5Y, value of 6 or 7, and chroma of 1 to 3

Texture—clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, olive, and brown

**BC horizon (where present):**

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 to 3

Texture—clay or silty clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, olive, and brown

**C horizon (where present):**

Color—hue of 10YR to 5Y, value of 5 or 6, and chroma of 1 to 3

Texture—clay, silty clay loam, clay loam, loam, or sandy loam or stratified layers

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, olive, and brown

## Trebloc Series

**Depth class:** Very deep

**Drainage class:** Poorly drained

**Permeability:** Slow

**Parent material:** Clayey alluvial sediments

**Landscape:** Coastal Plain

**Landform:** Low stream terraces

**Landform position:** Shallow drainageways and depressions

**Slope:** 0 to 2 percent

**Taxonomic classification:** Fine-silty, siliceous, active, thermic Typic Paleaquults

### Commonly Associated Soils

The Trebloc series is commonly associated with Annemaine, Cahaba, Stough, Una, and Urbo soils.

- The Annemaine soils have a reddish, clayey argillic horizon and are in the slightly higher, more convex positions.
- The Cahaba soils have a reddish argillic horizon and are in the slightly higher, more convex positions.
- The somewhat poorly drained Stough soils have a coarse-loamy argillic horizon and are in the slightly higher positions.
- The Una and Urbo soils have a clayey subsoil and are on flood plains.

### Typical Pedon

Trebloc silt loam, ponded; about 15 miles southwest of Leakesville in Greene County; 2,800 feet west and 1,300 feet south of the northeast corner of sec. 24, T. 1 N., R. 8 W.; USGS Leakesville SW topographic quadrangle; lat. 31 degrees 1 minute 49 seconds N. and long. 88 degrees 44 minutes 53 seconds W.

A1—0 to 1 inch; very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; very friable; many very fine and fine and common medium roots; few fine pores; very strongly acid; clear smooth boundary.

## Soil Survey of Wayne County, Mississippi

- A2—1 to 4 inches; dark gray (10YR 4/1) loam; weak fine subangular blocky structure; very friable; many very fine and fine and common medium roots; common fine pores; very strongly acid; clear smooth boundary.
- Eg—4 to 9 inches; gray (10YR 5/1) silt loam; weak medium subangular blocky structure; very friable; common very fine and fine and few medium roots; few fine pores; very strongly acid; clear wavy boundary.
- EB—9 to 15 inches; grayish brown (10YR 5/2) silt loam; weak coarse prismatic structure parting to weak medium subangular blocky; friable; common very fine and fine roots; few fine pores; very strongly acid; clear wavy boundary.
- Btg1—15 to 31 inches; light brownish gray (10YR 6/2) silty clay loam; weak coarse prismatic structure parting to moderate medium subangular blocky; firm, slightly plastic and sticky; few distinct clay films on faces of peds and in pores; few very fine and fine roots; few fine pores; few fine and medium distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btg2—31 to 39 inches; light brownish gray (2.5Y 6/2) silty clay loam; moderate medium subangular blocky structure; firm, plastic and sticky; few distinct clay films on faces of peds and in pores; few very fine and fine roots; few fine pores; common medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btg3—39 to 52 inches; light brownish gray (2.5Y 6/2) silty clay; moderate medium subangular blocky structure; firm, plastic and sticky; common distinct clay films on faces of peds; few very fine and fine roots; few fine pores; many medium and coarse prominent strong brown (7.5YR 5/8) and few medium prominent yellowish red (5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- Btg4—52 to 56 inches; light brownish gray (2.5Y 6/2) silty clay; moderate medium subangular blocky structure; firm, plastic and sticky; common distinct clay films on faces of peds; few very fine and fine roots; few fine pores; common medium and coarse prominent strong brown (7.5YR 5/8) and few medium prominent red (2.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries within the matrix; very strongly acid; gradual wavy boundary.
- BCg—56 to 65 inches; light gray (10YR 6/1) silty clay; weak coarse subangular blocky structure; firm, plastic and sticky; extremely acid; gradual wavy boundary.
- Cg1—65 to 81 inches; light gray (10YR 6/1) sandy loam; massive; friable; very strongly acid; gradual wavy boundary.
- Cg2—81 to 83 inches; very pale brown (10YR 8/2) sand; massive; loose; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid in the A, E, EB, BE, and Bt horizons, except where lime has been applied, and extremely acid or very strongly acid in the BC and C horizons

#### *A horizon:*

Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 1 or 2

Texture—silt loam or loam

#### *Eg horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

Texture—silt loam or very fine sandy loam

Redoximorphic features (where present)—iron accumulations in shades of brown

#### *BE or EB horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2

## Soil Survey of Wayne County, Mississippi

Texture—silt loam or silty clay loam

Redoximorphic features—iron accumulations in shades of brown

### *Btg horizon:*

Color—hue of 10YR to 5Y, value of 5 to 7, and chroma of 1 or 2; or neutral in hue and value of 5 or 6

Texture—silt loam, silty clay loam, or silty clay

Redoximorphic features—few to many iron accumulations in shades of red, yellow, and brown and none to many concretions of iron and manganese

### *BCg and Cg horizons (where present):*

Color—hue of 10YR to 5Y, value of 5 to 8, and chroma of 1 or 2

Texture—sandy clay loam, loam, clay loam, silty clay, sandy loam, and sand

Redoximorphic features (where present)—few to many iron accumulations in shades of yellow and brown and none to many concretions of iron and manganese

## Una Series

*Depth class:* Very deep

*Drainage class:* Poorly drained

*Permeability:* Very slow

*Parent material:* Clayey alluvial sediments

*Landscape:* Coastal Plain

*Landform:* Flood plains

*Landform position:* Slightly concave to linear slopes

*Slope:* 0 to 2 percent

*Taxonomic classification:* Fine, mixed, active, acid, thermic Typic Epiaquepts

### **Commonly Associated Soils**

The Una series is commonly associated with Bibb, Boswell, Dogue, Iuka, Jena, Mantachie, Trebloc, and Urbo soils.

- The poorly drained Bibb soils are coarse-loamy and are on narrow flood plains.
- The moderately well drained Boswell soils have a red argillic horizon and are on ridges and hillslopes.
- The moderately well drained Dogue soils are in the slightly higher positions.
- The moderately well drained Iuka soils are coarse-loamy and are on meander belts of flood plains.
- The well drained Jena soils are coarse-loamy and are on natural levees of flood plains.
- The somewhat poorly drained Mantachie soils are fine-loamy and are on the lower flats between natural levees and sloughs.
- The poorly drained Trebloc soils have a fine-silty argillic horizon and are in depressions on stream terraces.
- The somewhat poorly drained Urbo soils are on the slightly higher convex ridges in backswamps.

### **Typical Pedon**

Una silty clay loam, in an area of Urbo-Una complex, gently undulating, frequently flooded; in a wooded area about 14.5 miles southwest of Leakesville; 1,800 feet west and 2,500 feet south of the northeast corner of sec. 31, T. 1 N., R. 7 W.; USGS Leakesville topographic quadrangle; lat. 31 degrees 00 minutes 22.8 seconds N. and long. 88 degrees 43 minutes 42.1 seconds W.

## Soil Survey of Wayne County, Mississippi

- Ap—0 to 2 inches; dark grayish brown (10YR 4/2) silty clay loam; weak fine and medium granular structure; friable; many fine and common medium roots; very strongly acid; clear smooth boundary.
- Bg1—2 to 7 inches; gray (10YR 5/1) silty clay loam; weak coarse prismatic structure parting to weak fine and medium subangular blocky; firm, sticky and plastic; many fine and common medium roots; few fine pores; many fine to coarse prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine to coarse prominent reddish brown (2.5YR 4/4) irregularly shaped masses of iron accumulation along vertical faces of peds and along pores with sharp boundaries; very strongly acid; clear wavy boundary.
- Bg2—7 to 13 inches; gray (10YR 5/1) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, sticky and plastic; many fine and common medium roots; few fine pores; many fine to coarse prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine and medium prominent reddish brown (2.5YR 4/4) irregularly shaped masses of iron accumulation along vertical faces of peds and along pores with sharp boundaries; very strongly acid; clear wavy boundary.
- Bg3—13 to 20 inches; gray (10YR 5/1) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, sticky and plastic; common fine and few medium roots; few fine pores; many fine to coarse prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; few fine to coarse prominent reddish brown (2.5YR 4/4) irregularly shaped masses of iron accumulation along vertical faces of peds and along pores with sharp boundaries; very strongly acid; gradual wavy boundary.
- Bg4—20 to 38 inches; light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, sticky and plastic; few fine roots; few fine pores; many fine to coarse distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; common fine and medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation along vertical faces of peds and along pores with sharp boundaries; very strongly acid; gradual wavy boundary.
- Bg5—38 to 45 inches; gray (N 6/0) clay; weak coarse prismatic structure parting to moderate fine and medium angular blocky; firm, sticky and plastic; few fine roots; few fine pores; common fine to coarse prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; many fine to coarse prominent yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation along vertical faces of peds and along pores with sharp boundaries; very strongly acid; gradual wavy boundary.
- Bg6—45 to 51 inches; gray (N 6/0) clay; moderate fine and medium angular blocky structure; firm, very sticky and very plastic; many fine to coarse prominent yellowish red (5YR 5/8) irregularly shaped masses of iron accumulation along faces of peds and in cracks with sharp boundaries; many medium prominent gray (10YR 5/1) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bg7—51 to 68 inches; gray (10YR 5/1) clay; moderate fine and medium angular blocky structure; firm, sticky and plastic; few fine prominent red (2.5YR 5/6) irregularly shaped masses of iron accumulation on faces of peds with clear boundaries; very strongly acid; gradual wavy boundary.
- BCg—68 to 77 inches; light brownish gray (2.5Y 6/2) clay loam; weak coarse subangular blocky structure; firm, slightly sticky and slightly plastic; many fine to coarse prominent yellowish red (5YR 5/8) and strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation on faces of peds with clear boundaries; very strongly acid; gradual wavy boundary.

Cg—77 to 81 inches; gray (N 6/0) clay loam; massive; firm; many fine to coarse prominent yellowish red (5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid.

***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A horizon:*

Color—dominantly hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2 or 3; hue of 10YR, value of 3, and chroma of 1 to 3 in some pedons where the horizon is less than 4 inches thick

Texture—silty clay loam

Redoximorphic features—iron depletions in shades of gray

*AB or BA horizon (where present):*

Color—hue of 10YR, value of 4 or 5, and chroma of 1 to 4

Texture—silty clay loam or silty clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red and brown

*Bg horizon:*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or neutral in hue and value of 4 to 6

Texture—silty clay loam, silty clay, or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*BCg horizon (where present):*

Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2; or neutral in hue and value of 4 to 6

Texture—silty clay loam, silty clay, or clay loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*Cg horizon (where present):*

Color—hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 or 2; or neutral in hue and value of 4 to 6

Texture—silty clay loam, silty clay, clay loam, sandy clay loam, or sandy loam

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

**Urbo Series**

*Depth class:* Very deep

*Drainage class:* Somewhat poorly drained

*Permeability:* Very slow

*Parent material:* Clayey alluvial sediments

*Landscape:* Coastal Plain and Jackson Prairie

*Landform:* Flood plains

*Landform position:* Planar slopes to slightly convex ridges in backswamps

*Slope:* 0 to 5 percent

*Taxonomic classification:* Fine, mixed, active, acid, thermic Vertic Epiaquepts

### ***Commonly Associated Soils***

The Urbo series is commonly associated with Bibb, Boswell, Dogue, Ichusa, Iuka, Jena, Leeper, Mantachie, Trebloc, and Una soils.

- The poorly drained Bibb soils are coarse-loamy and are on narrow flood plains.
- The moderately well drained Boswell soils have a red argillic horizon and are on ridges and hillslopes.
- The moderately well drained Dogue soils are in the slightly higher positions.
- The somewhat poorly drained Ichusa soils have vertic properties and are on ridges and hillslopes.
- The moderately well drained Iuka soils have a coarse-loamy control section and are on meander belts of flood plains.
- The well drained Jena soils have a coarse-loamy Bw horizon and are on natural levees of the meander belts of flood plains.
- The somewhat poorly drained Leeper soils have a non-acid solum with vertic properties and are in positions similar to those of the Urbo soils in the Jackson Prairie.
- The somewhat poorly drained Mantachie soils have a fine-loamy Bw horizon and are on the lower flats between natural levees and sloughs.
- The poorly drained Trebloc soils have a fine-silty argillic horizon and are in depressions on stream terraces.
- The poorly drained Una soils have vertic properties and are in areas that are subject to ponding.

### ***Typical Pedon***

Urbo silty clay loam, in an area of Una-Urbo complex, gently undulating, frequently flooded; in a wooded area about 14.5 miles southwest of Leakesville in Greene County; 2,500 feet south and 2,650 feet west of the northeast corner of sec. 31, T. 1 N., R. 7 W.; USGS Leakesville SW topographic quadrangle; lat. 31 degrees 00 minutes 23.6 seconds N. and long. 88 degrees 43 minutes 50.5 seconds W.

Ap1—0 to 1 inch; brown (10YR 4/3) silty clay loam; weak fine and medium granular structure; friable; many fine and medium and few coarse roots; very strongly acid; clear smooth boundary.

Ap2—1 to 8 inches; dark yellowish brown (10YR 4/6) silty clay loam; moderate fine and medium subangular blocky structure; firm; many fine, common medium, and few coarse roots; few fine distinct light brownish gray (10YR 6/2) irregularly shaped iron depletions with clear boundaries in the matrix; very strongly acid; clear wavy boundary.

Bw—8 to 16 inches; mixed 60 percent yellowish brown (10YR 5/6) and 40 percent light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to strong fine to coarse angular blocky; firm, sticky and plastic; many fine and few medium roots; few fine pressure faces; very strongly acid; clear wavy boundary.

Bg1—16 to 23 inches; mixed 55 percent light brownish gray (10YR 6/2) and 45 percent yellowish brown (10YR 5/6) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, very sticky and very plastic; common fine roots; few fine pressure faces; very strongly acid; gradual wavy boundary.

Bg2—23 to 28 inches; light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, very sticky and very plastic; few fine roots; few fine pressure faces; common fine black iron-manganese concretions; many fine and medium distinct yellowish brown (10YR 5/6) and few medium prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.

- Bg3—28 to 44 inches; light brownish gray (10YR 6/2) clay; weak coarse prismatic structure parting to moderate fine and medium subangular blocky; firm, very sticky and very plastic; common fine pressure faces; many medium and coarse prominent red (2.5YR 5/6) and many medium and coarse distinct yellowish brown (10YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; very strongly acid; gradual wavy boundary.
- Bg4—44 to 53 inches; light brownish gray (2.5Y 6/2) clay; weak coarse prismatic structure parting to wedge-shaped fragments parting to moderate fine and medium subangular blocky structure; firm, very sticky and very plastic; many medium and coarse prominent red (2.5YR 5/6) and strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; extremely acid; gradual wavy boundary.
- Bg5—53 to 65 inches; light brownish gray (2.5Y 6/2) clay; weak coarse prismatic structure parting to wedge-shaped fragments parting to moderate fine and medium subangular blocky structure; firm, very sticky and very plastic; common fine to coarse prominent yellowish red (5YR 5/6) and common medium and coarse prominent strong brown (7.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; extremely acid; gradual wavy boundary.
- Bg6—65 to 73 inches; light brownish gray (2.5Y 6/2) clay; weak coarse prismatic structure parting to wedge-shaped fragments parting to moderate fine and medium subangular blocky structure; firm, very sticky and very plastic; many medium and coarse prominent strong brown (7.5YR 5/6) and common medium and coarse prominent red (2.5YR 5/6) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; extremely acid; gradual wavy boundary.
- BCg—73 to 84 inches; light brownish gray (2.5Y 6/2) silty clay; moderate fine and medium subangular blocky structure; firm, sticky and plastic; many medium and coarse prominent red (2.5YR 5/8) and common fine and medium prominent strong brown (7.5YR 5/8) irregularly shaped masses of iron accumulation with clear boundaries in the matrix; strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Depth to bedrock:* More than 80 inches

*Reaction:* Very strongly acid or strongly acid in the A, Bw, and Bg horizons and extremely acid or very strongly acid in the Bgss and C horizons, except where lime has been applied

*Ap or A horizon:*

Color—dominantly hue of 10YR, value of 4 or 5, and chroma of 2 to 6; hue of 10YR, value of 3, and chroma of 1 to 3 in some pedons where the horizon is less than 4 inches thick

Texture—silty clay loam

*Bw horizon:*

Color—hue of 10YR, value of 4 to 6, and chroma of 3 to 6; or a mixed matrix in shades of yellow, brown, and gray

Texture—silty clay or clay

Redoximorphic features (where present)—iron depletions in shades of gray and iron accumulations in shades of yellow and brown

*Bg horizon:*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or a mixed matrix in shades of gray, brown, and yellow

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*BC horizon (where present):*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2; or a mixed matrix in shades of gray, brown, yellow, and red

Texture—silty clay or clay

Redoximorphic features—iron depletions in shades of gray and iron accumulations in shades of red, yellow, and brown

*BCg horizon:*

Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 or 2

## **Wadley Series**

*Depth class:* Very deep

*Drainage class:* Somewhat excessively drained

*Permeability:* Rapid in A and E horizons and moderate in the Bt horizon

*Parent material:* Sandy sediments

*Landscape:* Coastal Plain

*Landform:* Uplands

*Landform position:* Summits, shoulder slopes, backslopes, and footslopes

*Slope:* 0 to 15 percent

*Taxonomic classification:* Loamy, siliceous, subactive, thermic Grossarenic Paleudults

### **Commonly Associated Soils**

The Wadley series is commonly associated with Alaga, Benndale, Boykin, Heidel, Irvington, Luverne, Maubila, McLaurin, Olla, Rattlesnake Forks, and Smithdale soils.

- The somewhat excessively drained Alaga soils are in positions similar to those of the Wadley soils but do not have an argillic horizon.
- The Benndale soils are in positions similar to those of the Wadley soils but are loamy.
- The well drained Boykin soils are in positions similar to those of the Wadley soils but have a thinner E horizon.
- The well drained Heidel soils are in positions similar to those of the Wadley soils but are coarse-loamy.
- The moderately well drained Irvington soils have thinner E horizon than the Wadley soils, have a fragipan in the lower part of the argillic horizon, and are on ridges.
- The clayey Luverne soils are on the steeper side slopes.
- The moderately well drained Maubila soils are clayey and are on dissected toeslopes.
- The McLaurin soils are on the slightly higher, more uniform ridgetops.
- The Olla soils are on the lower ridges and side slopes.
- The Rattlesnake Forks have a deep, sandy solum and are on the lower toeslopes.
- The well drained Smithdale soils are fine-loamy and are in positions similar to those of the Wadley soils or steeper.

### **Typical Pedon**

Wadley fine sand, in an area of Wadley-Boykin complex, 5 to 15 percent slopes; about 5 miles west of Waynesboro; 2,400 feet north and 2,200 feet west of the southeast corner of sec. 31, T. 9 N., R. 7 W.; USGS Waynesboro topographic quadrangle; lat. 31 degrees 42 minutes 6.1 seconds N. and long. 88 degrees 44 minutes 2.8 seconds W.

A—0 to 6 inches; brown (10YR 4/3) fine sand; single grain; loose; many fine, common medium, and few coarse roots; strongly acid; clear smooth boundary.

- E1—6 to 24 inches; very pale brown (10YR 7/4) fine sand; single grain; loose; few medium distinct spots of brownish yellow (10YR 6/6) fine sand; common fine, common medium, and few coarse roots; very strongly acid; gradual wavy boundary.
- E2—24 to 37 inches; dark yellowish brown (10YR 4/6) fine sand; single grain; loose; common fine and medium distinct very pale brown (10YR 7/4) streaks of clean sand; common fine and medium roots; very strongly acid; gradual wavy boundary.
- E3—37 to 57 inches; brownish yellow (10YR 6/6) fine sand; single grain; loose; common fine and medium distinct very pale brown (10YR 7/4) streaks of clean sand; common fine and medium roots; very strongly acid; gradual wavy boundary.
- E4—57 to 67 inches; yellow (10YR 7/6) fine sand; single grain; loose; many fine to coarse distinct brownish yellow (10YR 6/6) and very pale brown (10YR 7/3) streaks of clean sand; common fine roots; very strongly acid; gradual wavy boundary.
- E5—67 to 73 inches; yellow (10YR 7/6) fine sand; single grain; loose; common fine to coarse faint brownish yellow (10YR 6/6) and very pale brown (10YR 7/3) streaks of clean sand; few thin distinct strong brown (7.5YR 5/6) lamellae; few fine roots; very strongly acid; gradual wavy boundary.
- Bt—73 to 83 inches; yellowish brown (10YR 5/8) sandy loam; weak coarse subangular blocky structure; very friable; sand grains bridged and coated with oxides; few medium and coarse distinct yellowish red (5YR 5/6) irregularly shaped masses of iron accumulation; few fine iron-manganese concretions; less than 1 percent, by volume, fine plinthite nodules; very strongly acid.

### ***Range in Characteristics***

*Thickness of the solum:* More than 60 inches

*Reaction:* Very strongly acid or strongly acid throughout, except where lime has been applied

*A or Ap horizon:*

Color—hue of 10YR, value of 3 to 6, and chroma of 2 to 6

Texture—fine sand

*E horizon:*

Color—hue of 7.5YR, value of 4 to 7, and chroma of 4 to 8; hue of 10YR, value of 5 to 8, and chroma of 3 to 8; or a redder matrix

Texture—loamy fine sand, loamy sand, fine sand, or sand

*Content and size of rock fragments:* A few quartz pebbles in some pedons

*Bt horizon:*

Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 4 to 8

Texture—sandy loam, fine sandy loam, or sandy clay loam

*Content and size of rock fragments:* Up to 2 percent plinthite or 3 percent gravel

## **Watsonia Series**

*Depth class:* Shallow

*Drainage class:* Well drained

*Permeability:* Very slow

*Parent material:* Clayey sediments overlying interbedded limestone and chalk

*Landscape:* Blackland Prairie

*Landform:* Uplands

*Landform position:* Summits, shoulder slopes, benches, and the upper parts of side slopes

*Slope:* 2 to 40 percent

*Taxonomic classification:* Clayey, smectitic, thermic, shallow Leptic Hapluderts

### ***Commonly Associated Soils***

The Watsonia series is commonly associated with Brantley, Lorman, Okeelala, Prim, and Suggsville soils.

- The very deep Brantley and Lorman soils are on ridges and side slopes at lower elevations than the Watsonia soils.
- The very deep Okeelala soils have a loamy subsoil and are on side slopes at lower elevations than the Watsonia soils.
- The Prim soils are in positions similar to those of the Watsonia soils but are loamy-skeletal.
- The deep Suggsville soils are in positions similar to those of the Watsonia soils.

### ***Typical Pedon***

Watsonia clay, in an area of Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes; about 3 miles southwest of Suggsville in Clarke County, Alabama; 900 feet south and 500 feet west of the northeast corner of sec. 25, T. 7 N., R. 3 E.; USGS Suggsville topographic quadrangle; lat. 31 degrees 33 minutes 5 seconds N. and long. 87 degrees 43 minutes 9 seconds W.

Ap—0 to 4 inches; brown (7.5YR 4/4) clay; moderate coarse subangular blocky structure; firm; common fine and medium roots; common pressure faces; about 2 percent fine rounded pebbles of quartzite; moderately acid; clear wavy boundary.

Bss—4 to 15 inches; yellowish red (5YR 4/8) clay; strong coarse angular blocky structure parting to strong fine angular blocky; very firm; common fine and medium roots; common intersecting slickensides that have polished and striated surfaces; strongly acid; abrupt smooth boundary.

BC—15 to 17 inches; yellowish red (5YR 5/6) clay; weak coarse angular blocky structure parting to strong medium angular blocky; very firm; common fine roots; common intersecting slickensides that have polished and striated surfaces; neutral; abrupt wavy boundary.

Cr1—17 to 38 inches; light gray (10YR 7/2) chalk; moderate medium and thick platy structure; extremely firm; violently effervescent; moderately alkaline; clear irregular boundary.

Cr2—38 to 80 inches; light gray (10YR 7/2) chalk; massive; extremely firm; few thin lenses of indurated limestone; violently effervescent; moderately alkaline.

### ***Range in Characteristics***

*Depth to bedrock:* 10 to 20 inches

#### ***A or Ap horizon:***

Color—hue of 7.5YR or 10YR, value of 3 or 4, and chroma of 1 to 4

Reaction—very strongly acid to slightly acid

Texture—clay

#### ***Bss horizon:***

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 4 to 8

Texture—clay or silty clay

Reaction—very strongly acid to slightly acid

#### ***BC or C horizon (where present):***

Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—clay or silty clay

Reaction—slightly acid to moderately alkaline

## Soil Survey of Wayne County, Mississippi

### *Cr horizon:*

Type of bedrock—interbedded limestone and chalk with strata or lenses of indurated limestone and marl; massive or platy rock structure

Other—can be excavated with light-weight mechanical equipment and can be cut with hand tools with difficulty

# Formation of the Soils

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This section relates the soils in the survey area to the major factors of soil formation.

Soil is the product of soil-forming processes acting on accumulated or deposited geologic material. The characteristics of the soil are determined by the type of parent material; the plant and animal life on and in the soil; the climate under which the soil-forming factors were active; the topography, or lay of the land; and the length of time these forces have been active.

The parent material affects the kind of soil profile that is formed and, in extreme cases, determines it almost entirely. Plant and animal life are the active factors of soil formation. The climate determines the amount of water available for leaching and the amount of heat available for physical and chemical changes. Together, climate and plant and animal life act on the parent material and slowly change it to a natural body that has genetically related horizons. Topography commonly modifies these other factors. Time is required for changes in the parent material to result in the formation of a soil. Generally, a long time is required for the development of distinct soil horizons.

The five factors of soil formation are so closely interrelated that few generalizations can be made about the affect of any one factor unless conditions are specified for the other four. Soil formation is complex, and many processes of soil development are still unknown.

## Parent Material

Parent material is the unconsolidated mass from which soil is formed. The formation or deposition of this material is the first step in the development of a soil profile. The characteristics of the material determine the chemical and mineralogical composition of the soil. In Wayne County, four kinds of parent material, alone or in combination, have contributed to the formation of the soils. The four kinds are unconsolidated marine sediments (material weathered from bedrock); sands; loess (wind-deposited material); and alluvium (water-deposited material).

Alluvium is material that was transported by water and deposited on nearly level flood plains. Because of the various origins and differing velocities of flowing water, this material varies greatly in texture and mineralogical composition. The source of the parent material on the flood plains along small tributary streams is limited to the local uplands.

## Living Organisms

Plants and animals living on or in the soil are active in the soil-forming process. Plants furnish organic matter to the soil and bring up plant nutrients from underlying layers to the surface layer. As plants die and decay, they contribute organic matter to the soil. Bacteria and fungi decompose the plant remains and help to incorporate the organic matter into the soil.

The kinds of native vegetation have greatly influenced soil formation in Wayne County. The basic kinds of native vegetation were prairie grasses and forest vegetation.

Additions of organic matter to soils that formed under prairie grasses are largely the result of the yearly decomposition of plant materials. Plant tops decompose at the surface, and the roots decompose at various depths in the soil. As a result, soils that formed under prairie grasses have a thick, dark surface layer.

Additions of organic matter to soils that formed under forest vegetation are largely the result of leaves and twigs that decomposed on the surface. These soils have a thin, dark surface layer.

Insects, worms, humans, and other animals affect soil formation. Bacteria and fungi cause rotting of organic materials, fix nitrogen, and improve tilth. Burrowing animals and insects loosen and mix various soil horizons.

In a relatively short time, human activities have greatly affected the processes of soil formation. The major alterations have resulted in changes to vegetation, drainage of wet areas, and accelerated erosion. Row crops have replaced native grasses and many forested areas. Nearly all of the flood plains in the county and much of the uplands are now farmed. These changes have increased food production but have had an adverse effect in terms of sustained productivity. Accelerated erosion continues to reduce the potential of many upland soils, and the loss of cropland to urban development is virtually irreversible.

## **Climate**

Climate is an important factor affecting soil formation. Geologic erosion; plant and animal life; and, in more recent times, accelerated erosion all have varied with the climate.

High temperatures with adequate rainfall encourage rapid chemical and physical changes. This type of climate is conducive to the breakdown of minerals and the relocation of clay within the soil. The clay is moved downward into the soil profile, and this downward movement results in the formation of a subsoil. Nearly all of the upland soils in the county show evidence of illuviation.

## **Topography**

Topography, or relief, affects soil formation through its influence on drainage, runoff, the rate of water infiltration, and geologic erosion. Topography is characterized by the length, shape, aspect, and degree of slope. It is important in determining the pattern and distribution of soils.

The amount of water entering the soil depends on steepness of slope, permeability, and the intensity of rainfall. Because runoff is rapid in steep areas, very little water passes through the soil and soil formation is slow. Geologic erosion almost keeps pace with the soil-forming processes. In gently sloping areas, runoff is slow, erosion is minimal, and most of the water passes through the soil. Leaching, the translocation of clay, and other soil-forming processes are intensified in these areas. Soils in these areas generally show maximum profile development.

Soils on steep, south-facing slopes receive more direct sunlight and are drier than similar soils on north-facing slopes. Drier conditions influence soil formation by affecting the vegetation, the susceptibility to erosion, and the cycles of freezing and thawing.

## **Time**

The degree of profile development is dependent on the length of time that the parent material has been in place and subject to the soil-forming processes. Older soils show the effects of leaching and clay movement and have developed distinct horizons. Young soils show little profile development.

# References

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American Association of State Highway and Transportation Officials (AASHTO) 2000. Standard specifications for transportation materials and methods of sampling and testing. 20th edition, 2 volumes.

American Society for Testing and Materials (ASTM). 2001. Standard classification of soils for engineering purposes. ASTM Standard D 2487–00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS–79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. February 24, 1995. Hydric soils of the United States.

Hurt, G.W., P.M. Whited, and R.F. Pringle, editors. Version 4.0, 1998. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to Soil Taxonomy. 9th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y–87–1.

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

United States Department of Commerce, U.S. Census Bureau. Accessed June 25, 2009. American Fact Finder. <http://factfinder.census.gov/>



# Glossary

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- Aeration, soil.** The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.
- Alkali (sodic) soil.** A soil having so high a degree of alkalinity (pH 8.5 or higher) or so high a percentage of exchangeable sodium (15 percent or more of the total exchangeable bases), or both, that plant growth is restricted.
- Alluvium.** Material, such as sand, silt, or clay, deposited on land by streams.
- Alpha,alpha-dipyridyl.** A dye that when dissolved in 1N ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction indicates a type of redoximorphic feature.
- Animal unit month (AUM).** The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.
- Aquic conditions.** Current soil wetness characterized by saturation, reduction, and redoximorphic features.
- Argillic horizon.** A subsoil horizon characterized by an accumulation of illuvial clay.
- Aspect.** The direction in which a slope faces.
- Association, soil.** A group of soils or miscellaneous areas geographically associated in a characteristic repeating pattern and defined and delineated as a single map unit.
- Available water capacity (available moisture capacity).** The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:
- |                |              |
|----------------|--------------|
| Very low ..... | 0 to 3       |
| Low .....      | 3 to 6       |
| Moderate.....  | 6 to 9       |
| High .....     | 9 to 12      |
| Very high..... | more than 12 |
- Backslope.** The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.
- Basal area.** The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.
- Base saturation.** The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.
- Base slope.** A geomorphic component of hills consisting of the concave to linear (perpendicular to the contour) slope that, regardless of the lateral shape, forms an apron or wedge at the bottom of a hillside dominated by colluvium and slope-wash sediments (for example, slope alluvium).
- Bedding planes.** Fine strata, less than 5 millimeters thick, in unconsolidated alluvial, eolian, lacustrine, or marine sediment.

- Bedding system.** A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.
- Bedrock.** The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.
- Bench terrace.** A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.
- Bisequum.** Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.
- Breast height.** An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.
- Brush management.** Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.
- Calcareous soil.** A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.
- Cation.** An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.
- Cation-exchange capacity.** The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.
- Clay.** As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.
- Clay depletions.** Low-chroma zones having a low content of iron, manganese, and clay because of the chemical reduction of iron and manganese and the removal of iron, manganese, and clay. A type of redoximorphic depletion.
- Clay film.** A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.
- Claypan.** A slowly permeable soil horizon that contains much more clay than the horizons above it. A claypan is commonly hard when dry and plastic or stiff when wet.
- Coarse textured soil.** Sand or loamy sand.
- Cobbly soil material.** Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.
- COLE (coefficient of linear extensibility).** See Linear extensibility.
- Colluvium.** Soil material or rock fragments, or both, moved by creep, slide, or local wash and deposited at the base of steep slopes.
- Complex slope.** Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.
- Complex, soil.** A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.
- Concretions.** Cemented bodies with crude internal symmetry organized around a point, a line, or a plane. They typically take the form of concentric layers visible to the naked eye. Calcium carbonate, iron oxide, and manganese oxide are common

compounds making up concretions. If formed in place, concretions of iron oxide or manganese oxide are generally considered a type of redoximorphic concentration.

**Conservation cropping system.** Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

**Conservation tillage.** A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

**Consistence, soil.** Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the "Soil Survey Manual."

**Contour stripcropping.** Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

**Control section.** The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

**Corrosion.** Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

**Cover crop.** A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

**Cropping system.** Growing crops according to a planned system of rotation and management practices.

**Crop residue management.** Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

**Culmination of the mean annual increment (CMAI).** The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

**Cutbanks cave** (in tables). The walls of excavations tend to cave in or slough.

**Deferred grazing.** Postponing grazing or resting grazing land for a prescribed period.

**Dense layer** (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

**Depth, soil.** Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

**Drainage class** (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained*,

*somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained.* These classes are defined in the "Soil Survey Manual."

**Drainage, surface.** Runoff, or surface flow of water, from an area.

**Draw.** A small stream valley that generally is more open and has broader bottom land than a ravine or gulch.

**Ecological site.** An area where climate, soil, and relief are sufficiently uniform to produce a distinct natural plant community. An ecological site is the product of all the environmental factors responsible for its development. It is typified by an association of species that differ from those on other ecological sites in kind and/or proportion of species or in total production.

**Eluviation.** The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

**Ephemeral stream.** A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

**Erosion.** The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

*Erosion* (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains.  
Synonym: natural erosion.

*Erosion* (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

**Escarpment.** A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Synonym: scarp.

**Fallow.** Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

**Fertility, soil.** The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

**Field moisture capacity.** The moisture content of a soil, expressed as a percentage of the oven-dry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity*, *normal moisture capacity*, or *capillary capacity*.

**Fine textured soil.** Sandy clay, silty clay, or clay.

**First bottom.** The normal flood plain of a stream, subject to frequent or occasional flooding.

**Flood plain.** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

**Fluvial.** Of or pertaining to rivers; produced by river action, as a fluvial plain.

**Footslope.** The position that forms the inner, gently inclined surface at the base of a hillslope. In profile, footslopes are commonly concave. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

**Forest cover.** All trees and other woody plants (underbrush) covering the ground in a forest.

**Forest type.** A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

- Fragipan.** A loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand. A fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. When moist, it tends to rupture suddenly under pressure rather than to deform slowly.
- Genesis, soil.** The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.
- Gilgai.** Commonly, a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope. Typically, the microrelief of clayey soils that shrink and swell considerably with changes in moisture content.
- Gleyed soil.** Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.
- Graded stripcropping.** Growing crops in strips that grade toward a protected waterway.
- Grassed waterway.** A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.
- Gravel.** Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.
- Gravelly soil material.** Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.
- Green manure crop** (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.
- Ground water.** Water filling all the unblocked pores of the material below the water table.
- Gully.** A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rainfall. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.
- Hard bedrock.** Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.
- Hardpan.** A hardened or cemented soil horizon, or layer. The soil material is sandy, loamy, or clayey and is cemented by iron oxide, silica, calcium carbonate, or other substance.
- Head slope.** A geomorphic component of hills consisting of a laterally concave area of a hillside, especially at the head of a drainageway. The overland waterflow is converging.
- High-residue crops.** Such crops as small grain and corn used for grain. If properly managed, residue from these crops can be used to control erosion until the next crop in the rotation is established. These crops return large amounts of organic matter to the soil.
- Hill.** A natural elevation of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline; hillsides generally have slopes of more than 15 percent. The distinction between a hill and a mountain is arbitrary and is dependent on local usage.
- Horizon, soil.** A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

*O horizon*.—An organic layer of fresh and decaying plant residue.

*A horizon*.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

*E horizon*.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

*B horizon*.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

*C horizon*.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

*Cr horizon*.—Soft, consolidated bedrock beneath the soil.

*R layer*.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

**Humus.** The well decomposed, more or less stable part of the organic matter in mineral soils.

**Hydrologic soil groups.** Refers to soils grouped according to their runoff potential.

The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

**Illuviation.** The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

**Infiltration.** The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

**Infiltration capacity.** The maximum rate at which water can infiltrate into a soil under a given set of conditions.

**Infiltration rate.** The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

**Intake rate.** The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2 .....	very low
0.2 to 0.4 .....	low
0.4 to 0.75 .....	moderately low
0.75 to 1.25 .....	moderate
1.25 to 1.75 .....	moderately high
1.75 to 2.5 .....	high
More than 2.5 .....	very high

**Intermittent stream.** A stream, or reach of a stream, that flows for prolonged periods only when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

**Iron depletions.** Low-chroma zones having a low content of iron and manganese oxide because of chemical reduction and removal, but having a clay content similar to that of the adjacent matrix. A type of redoximorphic depletion.

**Irrigation.** Application of water to soils to assist in production of crops. Methods of irrigation are:

*Border.*—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

*Controlled flooding.*—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

*Corrugation.*—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

*Drip (or trickle).*—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

*Furrow.*—Water is applied in small ditches made by cultivation implements.

Furrows are used for tree and row crops.

*Sprinkler.*—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

**Karst** (topography). A kind of topography that formed in limestone, gypsum, or other soluble rocks by dissolution and that is characterized by closed depressions, sinkholes, caves, and underground drainage.

**Knoll.** A small, low, rounded hill rising above adjacent landforms.

**Ksat.** Saturated hydraulic conductivity. (See Permeability.)

**Lacustrine deposit.** Material deposited in lake water and exposed when the water level is lowered or the elevation of the land is raised.

**Landslide.** The rapid downhill movement of a mass of soil and loose rock, generally when wet or saturated. The speed and distance of movement, as well as the amount of soil and rock material, vary greatly.

**Leaching.** The removal of soluble material from soil or other material by percolating water.

**Linear extensibility.** Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at  $\frac{1}{3}$ - or  $\frac{1}{10}$ -bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

**Liquid limit.** The moisture content at which the soil passes from a plastic to a liquid state.

**Loam.** Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

**Loess.** Fine grained material, dominantly of silt-sized particles, deposited by wind.

**Low-residue crops.** Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

**Low strength.** The soil is not strong enough to support loads.

**Marl.** An earthy, unconsolidated deposit consisting chiefly of calcium carbonate mixed with clay in approximately equal amounts.

**Masses.** Concentrations of substances in the soil matrix that do not have a clearly defined boundary with the surrounding soil material and cannot be removed as a discrete unit. Common compounds making up masses are calcium carbonate, gypsum or other soluble salts, iron oxide, and manganese oxide. Masses consisting of iron oxide or manganese oxide generally are considered a type of redoximorphic concentration.

- Mechanical treatment.** Use of mechanical equipment for seeding, brush management, and other management practices.
- Medium textured soil.** Very fine sandy loam, loam, silt loam, or silt.
- Metamorphic rock.** Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement. Nearly all such rocks are crystalline.
- Mineral soil.** Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.
- Minimum tillage.** Only the tillage essential to crop production and prevention of soil damage.
- Miscellaneous area.** An area that has little or no natural soil and supports little or no vegetation.
- Moderately coarse textured soil.** Coarse sandy loam, sandy loam, or fine sandy loam.
- Moderately fine textured soil.** Clay loam, sandy clay loam, or silty clay loam.
- Morphology, soil.** The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.
- Mottling, soil.** Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few*, *common*, and *many*; size—*fine*, *medium*, and *coarse*; and contrast—*faint*, *distinct*, and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).
- Muck.** Dark, finely divided, well decomposed organic soil material. (See Sapric soil material.)
- Munsell notation.** A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.
- Neutral soil.** A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)
- Nodules.** Cemented bodies lacking visible internal structure. Calcium carbonate, iron oxide, and manganese oxide are common compounds making up nodules. If formed in place, nodules of iron oxide or manganese oxide are considered types of redoximorphic concentrations.
- Nose slope.** A geomorphic component of hills consisting of the projecting end (laterally convex area) of a hillside. The overland waterflow is predominantly divergent.
- Nutrient, plant.** Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.
- Organic matter.** Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:
- |                     |                       |
|---------------------|-----------------------|
| Very low .....      | less than 0.5 percent |
| Low .....           | 0.5 to 1.0 percent    |
| Moderately low..... | 1.0 to 2.0 percent    |
| Moderate.....       | 2.0 to 4.0 percent    |
| High .....          | 4.0 to 8.0 percent    |
| Very high.....      | more than 8.0 percent |
- Parent material.** The unconsolidated organic and mineral material in which soil forms.
- Peat.** Unconsolidated material, largely undecomposed organic matter, that has accumulated under excess moisture. (See Fibric soil material.)
- Ped.** An individual natural soil aggregate, such as a granule, a prism, or a block.

**Pedon.** The smallest volume that can be called “a soil.” A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

**Percolation.** The movement of water through the soil.

**Permeability.** The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as “saturated hydraulic conductivity,” which is defined in the “Soil Survey Manual.” In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as “permeability.” Terms describing permeability, measured in inches per hour, are as follows:

Impermeable.....	less than 0.0015 inch
Very slow .....	0.0015 to 0.06 inch
Slow .....	0.06 to 0.2 inch
Moderately slow.....	0.2 to 0.6 inch
Moderate.....	0.6 inch to 2.0 inches
Moderately rapid .....	2.0 to 6.0 inches
Rapid .....	6.0 to 20 inches
Very rapid.....	more than 20 inches

**Phase, soil.** A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

**pH value.** A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

**Piping.** Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

**Plasticity index.** The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

**Plastic limit.** The moisture content at which a soil changes from semisolid to plastic.

**Plinthite.** The sesquioxide-rich, humus-poor, highly weathered mixture of clay with quartz and other diluents. It commonly appears as red mottles, usually in platy, polygonal, or reticulate patterns. Plinthite changes irreversibly to an ironstone hardpan or to irregular aggregates on repeated wetting and drying, especially if it is exposed also to heat from the sun. In a moist soil, plinthite can be cut with a spade. It is a form of laterite.

**Plowpan.** A compacted layer formed in the soil directly below the plowed layer.

**Ponding.** Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

**Poorly graded.** Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

**Potential rooting depth (effective rooting depth).** Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

**Prescribed burning.** Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

**Productivity, soil.** The capability of a soil for producing a specified plant or sequence of plants under specific management.

**Profile, soil.** A vertical section of the soil extending through all its horizons and into the parent material.

**Proper grazing use.** Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key

plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

**Reaction, soil.** A measure of acidity or alkalinity of a soil, expressed in pH values.

A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid.....	less than 3.5
Extremely acid .....	3.5 to 4.4
Very strongly acid .....	4.5 to 5.0
Strongly acid .....	5.1 to 5.5
Moderately acid .....	5.6 to 6.0
Slightly acid.....	6.1 to 6.5
Neutral .....	6.6 to 7.3
Slightly alkaline .....	7.4 to 7.8
Moderately alkaline.....	7.9 to 8.4
Strongly alkaline .....	8.5 to 9.0
Very strongly alkaline.....	9.1 and higher

**Redoximorphic concentrations.** Nodules, concretions, soft masses, pore linings, and other features resulting from the accumulation of iron or manganese oxide. An indication of chemical reduction and oxidation resulting from saturation.

**Redoximorphic depletions.** Low-chroma zones from which iron and manganese oxide or a combination of iron and manganese oxide and clay has been removed. These zones are indications of the chemical reduction of iron resulting from saturation.

**Redoximorphic features.** Redoximorphic concentrations, redoximorphic depletions, reduced matrices, a positive reaction to alpha,alpha-dipyridyl, and other features indicating the chemical reduction and oxidation of iron and manganese compounds resulting from saturation.

**Reduced matrix.** A soil matrix that has low chroma in situ because of chemically reduced iron (Fe II). The chemical reduction results from nearly continuous wetness. The matrix undergoes a change in hue or chroma within 30 minutes after exposure to air as the iron is oxidized (Fe III). A type of redoximorphic feature.

**Relief.** The elevations or inequalities of a land surface, considered collectively.

**Residuum (residual soil material).** Unconsolidated, weathered or partly weathered mineral material that accumulated as consolidated rock disintegrated in place.

**Rill.** A steep-sided channel resulting from accelerated erosion. A rill generally is a few inches deep and not wide enough to be an obstacle to farm machinery.

**Road cut.** A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

**Rock fragments.** Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

**Root zone.** The part of the soil that can be penetrated by plant roots.

**Runoff.** The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

**Sand.** As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

**Sandstone.** Sedimentary rock containing dominantly sand-sized particles.

**Saturation.** Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

**Second bottom.** The first terrace above the normal flood plain (or first bottom) of a river.

- Sedimentary rock.** Rock made up of particles deposited from suspension in water. The chief kinds of sedimentary rock are conglomerate, formed from gravel; sandstone, formed from sand; shale, formed from clay; and limestone, formed from soft masses of calcium carbonate. There are many intermediate types. Some wind-deposited sand is consolidated into sandstone.
- Sequum.** A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)
- Series, soil.** A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.
- Shale.** Sedimentary rock formed by the hardening of a clay deposit.
- Sheet erosion.** The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.
- Shoulder.** The position that forms the uppermost inclined surface near the top of a hillslope. It is a transition from backslope to summit. The surface is dominantly convex in profile and erosional in origin.
- Shrink-swell** (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.
- Side slope.** A geomorphic component of hills consisting of a laterally planar area of a hillside. The overland waterflow is predominantly parallel.
- Silica.** A combination of silicon and oxygen. The mineral form is called quartz.
- Silica-sesquioxide ratio.** The ratio of the number of molecules of silica to the number of molecules of alumina and iron oxide. The more highly weathered soils or their clay fractions in warm-temperate, humid regions, and especially those in the tropics, generally have a low ratio.
- Silt.** As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.
- Similar soils.** Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.
- Sinkhole.** A depression in the landscape where limestone has been dissolved.
- Site index.** A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.
- Slickensides.** Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on the steeper slopes; on faces of blocks, prisms, and columns; and in swelling clayey soils, where there is marked change in moisture content.
- Slick spot.** A small area of soil having a puddled, crusted, or smooth surface and an excess of exchangeable sodium. The soil generally is silty or clayey, is slippery when wet, and is low in productivity.
- Slope.** The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance.
- Sodicity.** The degree to which a soil is affected by exchangeable sodium. Sodicity is expressed as a sodium adsorption ratio (SAR) of a saturation extract, or the ratio of  $\text{Na}^+$  to  $\text{Ca}^{++} + \text{Mg}^{++}$ . The degrees of sodicity and their respective ratios are:

Slight.....less than 13:1  
Moderate.....13-30:1  
Strong .....more than 30:1

**Sodium adsorption ratio (SAR).** A measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration.

**Soft bedrock.** Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

**Soil.** A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

**Soil separates.** Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand .....	2.0 to 1.0
Coarse sand .....	1.0 to 0.5
Medium sand .....	0.5 to 0.25
Fine sand .....	0.25 to 0.10
Very fine sand .....	0.10 to 0.05
Silt .....	0.05 to 0.002
Clay.....	less than 0.002

**Solum.** The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

**Stones.** Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

**Stony.** Refers to a soil containing stones in numbers that interfere with or prevent tillage.

**Stripcropping.** Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

**Structure, soil.** The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

**Stubble mulch.** Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

**Subsoil.** Technically, the B horizon; roughly, the part of the solum below plow depth.

**Subsoiling.** Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

**Substratum.** The part of the soil below the solum.

**Subsurface layer.** Any surface soil horizon (A, E, AB, or EB) below the surface layer.

**Summer fallow.** The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

**Summit.** The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

**Surface layer.** The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the "plow layer," or the "Ap horizon."

- Surface soil.** The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.
- Terrace.** An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.
- Terrace** (geologic). An old alluvial plain, ordinarily flat or undulating, bordering a river, a lake, or the sea.
- Texture, soil.** The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay*, and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."
- Thin layer** (in tables). Otherwise suitable soil material that is too thin for the specified use.
- Till plain.** An extensive area of nearly level to undulating soils underlain by glacial till.
- Tilth, soil.** The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.
- Toeslope.** The position that forms the gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.
- Topsoil.** The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.
- Trace elements.** Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.
- Upland.** Land at a higher elevation, in general, than the alluvial plain or stream terrace; land above the lowlands along streams.
- Water bars.** Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.
- Weathering.** All physical and chemical changes produced in rocks or other deposits at or near the earth's surface by atmospheric agents. These changes result in disintegration and decomposition of the material.
- Well graded.** Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.
- Wilting point (or permanent wilting point).** The moisture content of soil, on an oven-dry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.
- Windthrow.** The uprooting and tipping over of trees by the wind.



# Tables

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# Soil Survey of Wayne County, Mississippi

Table 1.--Temperature and Precipitation

[Recorded in the period 1971-2000 at Waynesboro, Mississippi]

Month	Temperature						Precipitation				
	2 years in 10 will have--					Average number of growing degree days*	2 years in 10 will have--			Average number of days with 0.10 inch or more	Average snowfall
	Average daily maximum	Average daily minimum	Average	Maximum temp. higher than--	Minimum temp. lower than--		Average	Less than--	More than--		
	°F	°F	°F	°F	°F	Units	In	In	In	In	
January-----	58.6	35.3	47.0	78	11	89	6.70	3.83	9.56	7	0.1
February-----	64.2	37.9	51.0	82	15	129	4.65	2.46	6.64	5	0.0
March-----	72.0	44.8	58.4	87	22	287	6.24	3.74	8.60	6	0.3
April-----	78.0	50.3	64.2	89	30	426	4.76	2.21	7.12	5	0.1
May-----	84.2	58.2	71.2	94	40	657	5.08	2.26	7.63	6	0.0
June-----	90.0	65.3	77.7	98	49	830	4.48	2.31	6.60	6	0.0
July-----	92.1	68.7	80.4	100	59	935	5.25	3.57	6.99	8	0.0
August-----	92.0	68.1	80.1	97	58	932	3.48	1.79	5.08	6	0.0
September----	87.6	62.8	75.2	97	43	756	4.46	1.72	7.05	5	0.0
October-----	79.2	50.1	64.7	91	29	454	2.92	0.92	4.85	4	0.0
November----	69.2	42.2	55.7	85	21	215	5.01	2.56	7.56	6	0.0
December----	61.4	36.6	49.2	80	14	115	5.39	3.16	7.33	6	0.0
Yearly:											
Average----	77.4	51.7	64.6	---	---	---	---	---	---	---	---
Extreme----	106	0	---	102	9	---	---	---	---	---	---
Total-----	---	---	---	---	---	5,825	58.43	49.27	64.54	70	0.4

\* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees F).

# Soil Survey of Wayne County, Mississippi

Table 2.--Freeze Dates in Spring and Fall

[Recorded in the period 1971-1990 at Waynesboro,  
Mississippi]

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	Mar. 11	Mar. 26	Apr. 11
2 years in 10 later than--	Mar. 3	Mar. 20	Apr. 6
5 years in 10 later than--	Feb. 17	Mar. 8	Mar. 27
First freezing temperature in fall:			
1 year in 10 earlier than--	Nov. 9	Oct. 27	Oct. 11
2 years in 10 earlier than--	Nov. 16	Nov. 2	Oct. 16
5 years in 10 earlier than--	Nov. 29	Nov. 15	Oct. 26

# Soil Survey of Wayne County, Mississippi

Table 3.--Growing Season

[Recorded in the period 1971-2000 at Waynesboro,  
Mississippi]

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	<i>Days</i>	<i>Days</i>	<i>Days</i>
9 years in 10	255	223	192
8 years in 10	265	232	199
5 years in 10	283	250	213
2 years in 10	301	267	226
1 year in 10	311	276	233

# Soil Survey of Wayne County, Mississippi

Table 4.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
AgB	Alaga fine sand, 0 to 5 percent slopes-----	592	0.1
AnA	Annemaline fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	5,881	1.1
BeB	Benndale fine sandy loam, 2 to 5 percent slopes-----	1,653	0.3
BeC	Benndale fine sandy loam, 5 to 8 percent slopes-----	586	0.1
BeD	Benndale fine sandy loam, 8 to 15 percent slopes-----	1,518	0.3
BkA	Bibb-Iuka complex, 0 to 1 percent slopes, frequently flooded-----	39,096	7.5
BmB	Bigbee loamy fine sand, 0 to 5 percent slopes, rarely flooded-----	7,970	1.5
BoB2	Boswell fine sandy loam, 2 to 5 percent slopes, eroded-----	4,879	0.9
BoC2	Boswell fine sandy loam, 5 to 12 percent slopes, eroded-----	16,483	3.2
BsE2	Boykin-Luverne-Smithdale complex, 15 to 35 percent slopes, eroded-----	170	*
BtD2	Brantley-Okeelala complex, 5 to 15 percent slopes, eroded-----	9,208	1.8
BtE2	Brantley-Okeelala complex, 15 to 35 percent slopes, eroded-----	19,766	3.8
BtG2	Brantley-Okeelala complex, 35 to 90 percent slopes, eroded-----	641	0.1
CaA	Cahaba fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	9,836	1.9
CaB	Cahaba fine sandy loam, 2 to 5 percent slopes, rarely flooded-----	1,814	0.3
DgB	Dogue fine sandy loam, gently undulating, rarely flooded-----	2,401	0.5
FnA	Fluvaquents, ponded-----	4,241	0.8
FsA	Freest fine sandy loam, 0 to 2 percent slopes-----	1,026	0.2
FsB	Freest fine sandy loam, 2 to 5 percent slopes-----	8,937	1.7
FsC	Freest fine sandy loam, 5 to 8 percent slopes-----	3,515	0.7
HaA	Harleston fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	2,332	0.4
HeD	Heidel fine sandy loam, 8 to 15 percent slopes-----	16,552	3.2
HeE	Heidel fine sandy loam, 15 to 35 percent slopes-----	11,155	2.1
IcB	Ichusa silty clay loam, 2 to 5 percent slopes-----	9,767	1.9
IrB	Irvington very fine sandy loam, 2 to 5 percent slopes-----	14,319	2.8
JnB	Jena-Una-Mantachie complex, gently undulating, frequently flooded-----	15,739	3.0
LaA	Latonia loamy sand, 0 to 2 percent slopes, rarely flooded-----	1,164	0.2
LfA	Leaf silt loam, 0 to 1 percent slopes, frequently flooded-----	4,771	0.9
LpA	Leeper silty clay loam, 0 to 1 percent slopes, frequently flooded-----	1,092	0.2
LrD	Lorman fine sandy loam, 5 to 15 percent slopes-----	26,742	5.1
LrE	Lorman fine sandy loam, 15 to 35 percent slopes-----	3,002	0.6
LtD	Lorman-Petal complex, 5 to 15 percent slopes-----	29,342	5.6
LuA	Louin silty clay, 0 to 2 percent slopes-----	2,724	0.5
LvA	Lucedale sandy loam, 0 to 2 percent slopes-----	1,191	0.2
MaA	Malbis fine sandy loam, 0 to 2 percent slopes-----	630	0.1
MaB	Malbis fine sandy loam, 2 to 5 percent slopes-----	22,181	4.3
MaC	Malbis fine sandy loam, 5 to 8 percent slopes-----	4,562	0.9
MbE	Maubila-Olla-Rattlesnake Forks complex, 8 to 35 percent slopes-----	2,161	0.4
MdA	McCrory-Deerford complex, 0 to 2 percent slopes, occasionally flooded----	1,292	0.2
MrA	McLaurin fine sandy loam, 0 to 2 percent slopes-----	373	*
MrB	McLaurin fine sandy loam, 2 to 5 percent slopes-----	25,215	4.8
MrC	McLaurin fine sandy loam, 5 to 8 percent slopes-----	4,266	0.8
OmC	Olla-Maubila complex, 2 to 8 percent slopes-----	484	*
PaA	Paxville loam, ponded-----	34	*
Pd	Pits-Udorthents complex-----	547	0.1
PeA	Prentiss fine sandy loam, 0 to 2 percent slopes-----	2,790	0.5
PwD	Prim-Suggsville-Watsonia complex, 2 to 10 percent slopes-----	254	*
PwF	Prim-Suggsville-Watsonia complex, 10 to 40 percent slopes-----	730	0.1
QtA	Quitman fine sandy loam, 0 to 2 percent, occasionally flooded-----	7,806	1.5
RuA	Ruston fine sandy loam, 0 to 2 percent slopes-----	779	0.1
RuB	Ruston fine sandy loam, 2 to 5 percent slopes-----	18,587	3.6
RuC	Ruston fine sandy loam, 5 to 8 percent slopes-----	15,959	3.1
SaA	Savannah fine sandy loam, 0 to 2 percent slopes-----	4,695	0.9
SaB	Savannah fine sandy loam, 2 to 5 percent slopes-----	17,210	3.3
SaC	Savannah fine sandy loam, 5 to 8 percent slopes-----	5,573	1.1
ShB	Shubuta fine sandy loam, 2 to 5 percent slopes-----	341	*
SmD	Smithdale fine sandy loam, 5 to 15 percent slopes-----	41,310	7.9
SmE	Smithdale fine sandy loam, 15 to 35 percent slopes-----	24,462	4.7
SoA	Stough fine sandy loam, 0 to 2 percent slopes, occasionally flooded----	10,162	2.0
StC2	Sumter-Maytag complex, 3 to 8 percent slopes, eroded-----	1,482	0.3
SuB	Susquehanna fine sandy loam, 2 to 5 percent slopes-----	10,242	2.0

See footnote at end of table.

# Soil Survey of Wayne County, Mississippi

Table 4.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
TbA	Trebloc silt loam, ponded-----	731	0.1
UaB	Urbo-Una complex, gently undulating, frequently flooded-----	3,068	0.6
W	Water-----	5,512	1.1
WaB	Wadley loamy fine sand, 0 to 5 percent slopes-----	856	0.2
WsD	Wadley-Boykin-Smithdale complex, 5 to 15 percent slopes-----	6,201	1.2
	Total-----	520,600	100.0

\* Less than 0.1 percent.

# Soil Survey of Wayne County, Mississippi

Table 5.--Prime Farmland and Other Important Farmland

[Only the soils considered prime or important farmland are listed. Urban or built-up areas of the soils listed are not considered prime or important farmland. If a soil is prime or important farmland only under certain conditions, the conditions are specified in parentheses after the soil name]

Map symbol	Map unit name	Farmland Classification
AgB	Alaga fine sand, 0 to 5 percent slopes-----	Farmland of statewide importance
AnA	Annemaine fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	All areas are prime farmland
BeB	Benndale fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
BeC	Benndale fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
BmB	Bigbee loamy fine sand, 0 to 5 percent slopes, rarely flooded-----	Farmland of statewide importance
BoB2	Boswell fine sandy loam, 2 to 5 percent slopes, eroded-----	All areas are prime farmland
CaA	Cahaba fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	All areas are prime farmland
CaB	Cahaba fine sandy loam, 2 to 5 percent slopes, rarely flooded-----	All areas are prime farmland
DgB	Dogue fine sandy loam, gently undulating, rarely flooded----	All areas are prime farmland
FsA	Freest fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
FsB	Freest fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
FsC	Freest fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
HaA	Harleston fine sandy loam, 0 to 2 percent slopes, rarely flooded-----	All areas are prime farmland
IcB	Ichusa silty clay loam, 2 to 5 percent slopes-----	All areas are prime farmland
IrB	Irvington very fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
LaA	Latonia loamy sand, 0 to 2 percent slopes, rarely flooded---	All areas are prime farmland
LpA	Leeper silty clay loam, 0 to 1 percent slopes, frequently flooded-----	Prime farmland where drained and either protected from flooding or not frequently flooded during the growing season
LvA	Lucedale sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
MaA	Malbis fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
MaB	Malbis fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
MaC	Malbis fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
MrA	McLaurin fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
MrB	McLaurin fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
MrC	McLaurin fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
PeA	Prentiss fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
QtA	Quitman fine sandy loam, 0 to 2 percent, occasionally flooded-----	All areas are prime farmland
RuA	Ruston fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
RuB	Ruston fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
RuC	Ruston fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
SaA	Savannah fine sandy loam, 0 to 2 percent slopes-----	All areas are prime farmland
SaB	Savannah fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
SaC	Savannah fine sandy loam, 5 to 8 percent slopes-----	Farmland of statewide importance
ShB	Shubuta fine sandy loam, 2 to 5 percent slopes-----	All areas are prime farmland
SoA	Stough fine sandy loam, 0 to 2 percent slopes, occasionally flooded-----	Farmland of statewide importance
SuB	Susquehanna fine sandy loam, 2 to 5 percent slopes-----	Farmland of statewide importance

# Soil Survey of Wayne County, Mississippi

Table 6.--Land Capability and Yields per Acre of Crops and Pasture

[Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Map symbol and soil name	Land capability	Bahiagrass	Corn	Cotton lint	Improved bermudagrass	Soybeans
		<i>AUM</i>	<i>Bu</i>	<i>Lbs</i>	<i>AUM</i>	<i>Bu</i>
AgB: Alaga-----	3s	7	60	---	7.5	---
AnA: Annemaine-----	2w	10	100	800	---	40
BeB: Benndale-----	2e	8.5	75	750	10.5	30
BeC: Benndale-----	3e	8	70	750	9	25
BeD: Benndale-----	4e	7.5	60	700	8	20
BkA: Bibb-----	5w	---	---	---	---	---
Iuka-----	5w	7	---	---	8	---
BmB: Bigbee-----	3s	7	60	---	7.5	---
BoB2: Boswell-----	3e	6.5	45	400	---	---
BoC2: Boswell-----	6e	6	---	---	---	---
BsE2: Boykin-----	4s	---	---	---	---	---
Luverne-----	7e	---	---	---	---	---
Smithdale-----	7e	---	---	---	---	---
BtD2: Brantley-----	6e	---	---	---	---	---
Okeelala-----	6e	---	---	---	---	---
BtE2: Okeelala-----	7e	---	---	---	---	---
Brantley-----	7e	---	---	---	---	---
BtG2: Okeelala-----	7e	---	---	---	---	---
Brantley-----	7e	---	---	---	---	---
CaA: Cahaba-----	1	8.5	100	800	10	35
CaB: Cahaba-----	2e	8	85	750	9.5	30

# Soil Survey of Wayne County, Mississippi

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bahiagrass	Corn	Cotton lint	Improved bermudagrass	Soybeans
		<i>AUM</i>	<i>Bu</i>	<i>Lbs</i>	<i>AUM</i>	<i>Bu</i>
DgB: Dogue-----	2e	---	125	---	---	45
FnA: Fluvaquents, ponded----	7w	---	---	---	---	---
FsA: Freest-----	2w	---	50	450	7	25
FsB: Freest-----	2e	---	40	400	7	25
FsC: Freest-----	3e	---	---	350	6.5	20
HaA: Harleston-----	2w	9	90	---	11	35
HeD: Heidel-----	4e	6	60	---	7.5	20
HeE: Heidel-----	7e	5	---	750	---	---
IcB: Ichusa-----	3e	7	---	550	8.5	25
IrB: Irvington-----	2e	8	80	650	---	35
JnB: Jena-----	5w	---	---	---	---	---
Una-----	4w	8.5	---	---	---	35
Mantachie-----	5w	---	---	---	---	---
LaA: Latonia-----	2s	8.5	60	---	9.5	25
LfA: Leaf-----	4w	8.5	---	---	---	35
LpA: Leeper-----	4w	6	---	---	---	30
LrD: Lorman-----	6e	6.5	---	---	---	20
LrE: Lorman-----	7e	6.5	---	---	---	20
LtD: Lorman-----	6e	7	---	550	8.5	25
Petal-----	4e	---	---	---	6	---
LuA: Louin-----	3w	7	---	---	---	---
LvA: Lucedale-----	1	10	80	750	10	40

# Soil Survey of Wayne County, Mississippi

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bahiagrass	Corn	Cotton lint	Improved bermudagrass	Soybeans
		<i>AUM</i>	<i>Bu</i>	<i>Lbs</i>	<i>AUM</i>	<i>Bu</i>
MaA:						
Malbis-----	1	9	100	800	10	40
MaB:						
Malbis-----	2e	8.5	95	750	9.5	37
MaC:						
Malbis-----	3e	8	80	650	9	30
MbE:						
Maubila-----	7e	5.8	---	---	5.80	---
Olla-----	7e	---	70	600	7.5	25
Rattlesnake Forks-----	7e	---	---	---	---	---
MdA:						
McCrary-----	4w	---	---	---	---	---
Deerford-----	4w	---	---	---	---	---
MrA:						
McLaurin-----	2s	9	80	650	11	30
MrB:						
McLaurin-----	2e	8	75	600	10	25
MrC:						
McLaurin-----	3e	7	70	---	8.5	25
OmC:						
Olla-----	3e	---	70	600	7.5	25
Maubila-----	4e	5.8	---	---	5.80	---
PaA:						
Paxville, ponded-----	6w	---	---	---	---	---
Pd:						
Pits-----	8s	---	---	---	---	---
Udorthents-----	6e	---	---	---	---	---
PeA:						
Prentiss-----	2w	9	85	750	9	30
PwD:						
Prim-----	6s	---	---	---	---	---
Suggsville-----	4e	---	---	---	---	---
Watsonia-----	6e	---	---	---	---	---
PwF:						
Prim-----	7s	---	---	---	---	---
Suggsville-----	7e	---	---	---	---	---
Watsonia-----	7e	---	---	---	---	---
QtA:						
Quitman-----	2w	10	80	650	10	30

# Soil Survey of Wayne County, Mississippi

Table 6.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Bahiagrass	Corn	Cotton lint	Improved bermudagrass	Soybeans
		<i>AUM</i>	<i>Bu</i>	<i>Lbs</i>	<i>AUM</i>	<i>Bu</i>
RuA: Ruston-----	2e	9.5	70	650	12	30
RuB: Ruston-----	3e	9.5	65	600	12	25
RuC: Ruston-----	3e	9.5	65	600	12	25
SaA: Savannah-----	2w	9	80	700	8.5	35
SaB: Savannah-----	2e	9	75	650	8.5	35
SaC: Savannah-----	3e	9	70	600	8	30
ShB: Shubuta-----	3e	5.5	---	---	---	---
SmD: Smithdale-----	4e	8	55	400	9	25
SmE: Smithdale-----	7e	---	---	---	---	---
SoA: Stough-----	2w	8	80	725	8	25
StC2: Sumter-----	4e	---	---	---	---	---
Maytag-----	4e	---	---	---	---	25
SuB: Susquehanna-----	4e	6.5	---	---	---	20
TbA: Trebloc, ponded-----	5w	7	---	---	6	---
UaB: Una-----	4w	8.5	---	---	---	35
Urbo.						
WaB: Wadley-----	3s	6.5	55	---	7.5	24
WsD: Wadley-----	6s	6	---	---	6.5	---
Boykin-----	4s	---	---	---	---	---
Smithdale-----	6e	---	---	---	---	---

Table 7.--Forestland Management and Productivity

Map symbol and soil name	Ordi- nation symbol	Management concerns					Potential productivity			
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Plant competi- tion	Common trees	Site index of wo-	Volume of fiber	cu ft/
AgB: Alaga-----	8S	Slight	Moderate	Moderate	Slight	Moderate	Loblolly pine----- Longleaf pine----- Slash pine-----	80 70 80	114 86 143	
AnA: Annemaine-----	8W	Slight	Moderate	Slight	Slight	Moderate	American sycamore----- Loblolly pine----- Shortleaf pine----- Slash pine----- Sweetgum----- Yellow poplar-----	90 80 70 80 80 90	100 114 114 143 86 86	
BeB: Benndale-----	10A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine----- Longleaf pine----- Slash pine-----	94 79 94	143 100 172	
BeC: Benndale-----	10A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine----- Longleaf pine----- Slash pine-----	94 79 94	143 100 172	
BeD: Benndale-----	10A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine----- Longleaf pine----- Slash pine-----	94 79 94	143 100 172	
BkA: Bibb-----	11W	Slight	Severe	Severe	Moderate	Severe	Loblolly pine----- Sweetgum----- Water oak----- Blackgum----- Green ash-----	90 90 90 -- 80	157 100 86 -- --	
Iuka-----	9W	Slight	Moderate	Moderate	Slight	Severe	Loblolly pine----- Sweetgum----- Cherrybark oak----- Water oak----- Green ash-----	100 100 110 100 90	129 143 143 100 --	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordi- nation symbol	Management concerns					Potential productivity			
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Plant competi- tion	Common trees	Site index of wo-	Volume of wo- fiber	cu ft/
BmB: Bigbee-----	8S	Slight	Moderate	Moderate	Slight	Moderate	Loblolly pine----- Longleaf pine----- Slash pine-----	80 70 80	114 86 143	
BoB2: Boswell-----	8C	Slight	Moderate	Slight	Slight	Slight	Loblolly pine----- Shortleaf pine-----	80 70	114 114	
BoC2: Boswell-----	8C	Slight	Moderate	Slight	Slight	Slight	Loblolly pine----- Shortleaf pine-----	80 70	114 114	
BsE2: Boykin-----	9S	Slight	Slight	Moderate	Slight	Moderate	Loblolly pine----- Shortleaf pine----- Longleaf pine----- Slash pine-----	85 75 75 85	120 120 90 153	
Luverne-----	9R	Moderate	Moderate	Slight	Slight	Moderate	Loblolly pine----- Slash pine----- Shortleaf pine-----	90 90 80	129 157 86	
Smithdale-----	9R	Moderate	Moderate	Slight	Slight	Slight	Loblolly pine----- Longleaf pine----- Slash pine-----	86 69 85	129 72 157	
BtD2: Brantley-----	8R	Moderate	Moderate	Slight	Slight	Moderate	Loblolly pine----- Shortleaf pine-----	85 75	114 114	
Okeelala-----	8R	Moderate	Moderate	Slight	Slight	Slight	Loblolly pine----- Longleaf pine-----	85 75	114 114	
BtE2: Okeelala-----	8R	Moderate	Moderate	Slight	Slight	Slight	Loblolly pine----- Longleaf pine-----	85 75	114 114	
Brantley-----	8R	Moderate	Moderate	Slight	Slight	Moderate	Loblolly pine----- Shortleaf pine-----	85 75	114 114	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity		
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index of woody fiber	Volume of wood fiber
BtG2:									cu ft
Okeelala-----	8R	Moderate	Moderate	Slight	Slight	Slight	Loblolly pine-----	85	114
							Longleaf pine-----	75	114
Brantley-----	8R	Moderate	Moderate	Slight	Slight	Moderate	Loblolly pine-----	85	114
							Shortleaf pine-----	75	114
CaA:									
Cahaba-----	9A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	87	129
							Shortleaf pine-----	70	114
							Slash pine-----	91	172
							Southern red oak-----	---	---
							Sweetgum-----	90	100
							Water oak-----	---	---
							Yellow poplar-----	---	---
CaB:									
Cahaba-----	9A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	87	129
							Shortleaf pine-----	70	114
							Slash pine-----	91	172
							Southern red oak-----	---	---
							Sweetgum-----	90	100
							Water oak-----	---	---
							Yellow poplar-----	---	---
DgB:									
Dogue-----	9A	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	90	129
							Water oak-----	90	---
							Sweetgum-----	85	100
							Yellow poplar-----	90	---
							White oak-----	80	57
FnA:									
Fluvaquents, ponded-----	7W	Slight	Severe	Severe	Severe	Slight	Bald cypress-----	80	100
							Blackgum-----	---	---
							Red maple-----	---	---
							Swamp tupelo-----	---	---
FsA:									
Freest-----	9W	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	90	129
							Shortleaf pine-----	80	129
							Slash pine-----	85	157

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity			
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood fiber	
									cu ft/	
FsB: Freest-----	9W	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	90	129	
							Shortleaf pine-----	80	129	
							Slash pine-----	85	157	
FsC: Freest-----	9W	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	90	129	
							Shortleaf pine-----	80	129	
							Slash pine-----	85	157	
HaA: Harleston-----	9W	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	90	129	
							Shortleaf pine-----	80	129	
							Sweetgum-----	75	72	
HeD: Heidel-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	90	129	
							Shortleaf pine-----	72	114	
							Slash pine-----	90	157	
HeE: Heidel-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	90	129	
							Shortleaf pine-----	72	114	
							Slash pine-----	90	157	
ICB: Ichusa-----	9C	Slight	Moderate	Moderate	Slight	Moderate	Cherrybark oak-----	90	114	
							Loblolly pine-----	90	129	
							Shumard's oak-----	85	72	
							Sweetgum-----	90	100	
							Water oak-----	80	72	
							White oak-----	80	57	
IRB: Irvington-----	11W	Slight	Moderate	Slight	Moderate	Moderate	Loblolly pine-----	90	129	
							Longleaf pine-----	70	86	
							Slash pine-----	90	157	
							Sweetgum-----	90	100	
							Water oak-----	85	86	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity		
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood fiber
JnB: Jena-----	11W	Slight	Severe	Moderate	Slight	Moderate	Loblolly pine----- Slash pine----- Sweetgum----- Water oak-----	100 --- 90 80	157 --- 100 72
Una-----	9W	Slight	Moderate	Moderate	Slight	Severe	Loblolly pine----- Slash pine----- Sweetgum-----	90 90 90	129 157 100
Mantachie-----	10W	Slight	Severe	Severe	Slight	Severe	Cherrybark oak----- Eastern cottonwood-- Green ash----- Loblolly pine----- Sweetgum-----	100 90 80 100 95	151 103 49 154 122
IaA: Latonia-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine----- Longleaf pine----- Slash pine-----	90 70 90	129 86 157
LfA: Leaf-----	9W	Slight	Moderate	Severe	Slight	Severe	Loblolly pine----- Slash pine----- Sweetgum-----	90 90 90	129 157 100
IpA: Leeper-----	11W	Slight	Moderate	Severe	Slight	Moderate	Water oak----- Sweetgum----- Green ash-----	95 105 90	129 114 57
IrD: Lorman-----	8C	Slight	Moderate	Slight	Slight	Severe	Loblolly pine----- Shortleaf pine-----	80 70	114 114
IrE: Lorman-----	8R	Moderate	Moderate	Slight	Slight	Severe	Loblolly pine----- Shortleaf pine-----	80 70	114 114

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity			
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood	Volume of fiber
ItD:										cu ft
Lorman-----	8C	Slight	Moderate	Slight	Slight	Severe	Loblolly pine-----	80	114	114
Petal-----	9A	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	90	129	129
							Longleaf pine-----	75	86	86
							Shortleaf pine-----	80	129	129
							Slash pine-----	85	157	157
LuA:										
Louin-----	8C	Slight	Moderate	Moderate	Slight	Severe	Loblolly pine-----	85	114	114
							Shortleaf pine-----	75	114	114
							Sweetgum-----	80	86	86
LuA:										
Lucedale-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	90	129	129
							Longleaf pine-----	75	86	86
							Slash pine-----	90	157	157
MaA:										
Malbis-----	9A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	90	129	129
							Longleaf pine-----	80	100	100
							Slash pine-----	90	157	157
MaB:										
Malbis-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	90	129	129
							Longleaf pine-----	80	100	100
							Slash pine-----	90	157	157
MaC:										
Malbis-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	90	129	129
							Longleaf pine-----	80	100	100
							Slash pine-----	90	157	157
MaE:										
Maubila-----	8A	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	75	101	101
							Shortleaf pine-----	70	110	110
							Longleaf pine-----	65	67	67
Olla-----	9A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	86	129	129
							Longleaf pine-----	67	72	72
							Slash pine-----	86	157	157

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity			
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood	Volume of fiber
MbE: Rattlesnake Forks-----	9A	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	86	129	
							Longleaf pine-----	67	72	
							Slash pine-----	86	157	
MdA: McCrory-----	5W	Slight	Moderate	Moderate	Severe	Severe	Water oak-----	95	92	
							Sweetgum-----	95	122	
							Slash pine-----	80	110	
Deerford-----	10W	Slight	Moderate	Moderate	Severe	Severe	Loblolly pine-----	90	131	
							Sweetgum-----	90	106	
							Slash pine-----	90	163	
MrA: McLaurin-----	9A	Slight	Moderate	Slight	Slight	Slight	Water oak-----	90	86	
							Willow oak-----	90	86	
MrB: McLaurin-----	9A	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	90	129	
							Longleaf pine-----	72	86	
							Slash pine-----	90	157	
MrC: McLaurin-----	9A	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	90	129	
							Longleaf pine-----	72	86	
							Slash pine-----	90	157	
OmC: Olla-----	9A	Slight	Slight	Slight	Slight	Moderate	Loblolly pine-----	86	129	
							Longleaf pine-----	67	72	
							Slash pine-----	86	157	
Maubila-----	8A	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine-----	75	101	
							Shortleaf pine-----	70	110	
							Longleaf pine-----	65	67	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordi- nation symbol	Management concerns					Potential productivity		
		Erosion hazard	Equip- ment limita- tion	Seedling mortal- ity	Wind- throw hazard	Plant competi- tion	Common trees	Site index of wo-	Volume of woody fiber cu ft
PAA: Paxville, ponded-----	9W	Slight	Severe	Severe	Moderate	Severe	American sycamore	---	---
							Blackgum	---	---
							Loblolly pine	88	129
							Shumard's oak	---	---
							Slash pine	92	172
							Southern red oak	---	---
							Sweetgum	92	114
							Water oak	86	86
Pd: Pits. Udorthents.									
PeA: Prentiss-----	9W	Slight	Slight	Slight	Moderate	Moderate	Cherrybark oak	90	114
							Loblolly pine	88	129
							Shortleaf pine	79	129
							Sweetgum	90	100
							White oak	80	57
PwD: Prim-----	4D	Moderate	Severe	Moderate	Moderate	Slight	Eastern redcedar	47	57
Suggsville-----	9C	Slight	Moderate	Severe	Slight	Moderate	Eastern redcedar	55	57
							Loblolly pine	90	131
							Shortleaf pine	80	130
							Southern red oak	80	62
Watsonia-----	7R	Moderate	Severe	Severe	Severe	Moderate	Eastern redcedar	40	43
							Loblolly pine	75	101
PwF: Prim-----	4D	Moderate	Severe	Moderate	Moderate	Slight	Eastern redcedar	47	57
Suggsville-----	9C	Slight	Moderate	Severe	Slight	Moderate	Eastern redcedar	55	57
							Loblolly pine	90	131
							Shortleaf pine	80	130
							Southern red oak	80	62
Watsonia-----	7R	Moderate	Severe	Severe	Severe	Moderate	Eastern redcedar	40	43
							Loblolly pine	75	101

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity			
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood fiber	Volume of fiber
QtA: Quitman-----	10W	Slight	Moderate	Slight	Slight	Moderate	Loblolly pine----- Slash pine----- Sweetgum-----	92 90 93	143 157 114	
RuA: Ruston-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	91	189	
RuB: Ruston-----	9A	Slight	Slight	Slight	Slight	Slight	Hickory----- Loblolly pine----- Longleaf pine----- Post oak----- Slash pine----- Southern red oak----- Sweetgum-----	--- 91 76 --- 91 --- ---	--- 129 86 --- 172 --- ---	
RuC: Ruston-----	9A	Slight	Slight	Slight	Slight	Slight	Hickory----- Loblolly pine----- Longleaf pine----- Post oak----- Slash pine----- Southern red oak----- Sweetgum-----	--- 91 76 --- 91 --- ---	--- 129 86 --- 172 --- ---	
SaA: Savannah-----	9W	Slight	Moderate	Slight	Moderate	Moderate	Loblolly pine----- Longleaf pine----- Slash pine----- Sweetgum-----	88 78 88 85	129 100 157 86	
SaB: Savannah-----	9W	Slight	Moderate	Slight	Moderate	Moderate	Loblolly pine----- Longleaf pine----- Slash pine----- Sweetgum-----	88 78 88 85	129 100 157 86	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity			
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index	Volume of wood fiber	
SaC: Savannah-----	9W	Slight	Moderate	Slight	Moderate	Moderate	Loblolly pine-----	88	129	
							Longleaf pine-----	78	100	
							Slash pine-----	88	157	
							Sweetgum-----	85	86	
ShB: Shubuta-----	8C	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	83	114	
							Shortleaf pine-----	73	114	
SmD: Smithdale-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine-----	86	129	
							Longleaf pine-----	69	72	
							Slash pine-----	85	157	
SmE: Smithdale-----	9R	Moderate	Moderate	Slight	Slight	Slight	Loblolly pine-----	86	129	
							Longleaf pine-----	69	72	
							Slash pine-----	85	157	
SoA: Stough-----	9W	Slight	Moderate	Slight	Moderate	Severe	Cherrybark oak-----	85	100	
							Loblolly pine-----	90	129	
							Slash pine-----	86	157	
							Sweetgum-----	85	86	
							Water oak-----	80	72	
StC2: Sumter-----	3C	Slight	Slight	Moderate	Moderate	Moderate	Eastern redcedar-----	40	43	
Maytag-----	3C	Slight	Moderate	Moderate	Slight	Slight	Eastern redcedar-----	40	43	
							Common hackberry-----	---	---	
SuB: Susquehanna-----	8C	Slight	Moderate	Slight	Slight	Slight	Loblolly pine-----	78	114	
							Shortleaf pine-----	68	100	
TbA: Trebloc, ponded-----	10W	Slight	Moderate	Severe	Moderate	Severe	Loblolly pine-----	95	143	
							Sweetgum-----	90	100	
							Water oak-----	85	86	
							Willow oak-----	80	72	

Table 7.--Forestland Management and Productivity--Continued

Map symbol and soil name	Ordination symbol	Management concerns					Potential productivity		
		Erosion hazard	Equipment limitation	Seedling mortality	Windthrow hazard	Plant competition	Common trees	Site index of woody fiber	Volume of wood fiber
UaB: Una-----	9W	Slight	Moderate	Moderate	Slight	Severe	Loblolly pine----- Slash pine----- Sweetgum-----	90 90 90	129 157 100
Urbo-----	---	---	---	---	---	---	Cherrybark oak----- Eastern cottonwood-- Green ash----- Loblolly pine----- Sweetgum-----	99 108 93 90 98	143 157 57 129 129
WaB: Wadley-----	11S	Slight	Moderate	Moderate	Slight	Moderate	bluejack oak----- Live oak----- Loblolly pine----- Longleaf pine----- Sand pine----- Slash pine----- Turkey oak-----	--- --- 85 79 75 85 ---	--- --- 114 100 57 157 ---
WSD: Wadley-----	11S	Slight	Moderate	Moderate	Slight	Moderate	Bluejack oak----- Live oak----- Loblolly pine----- Longleaf pine----- Sand pine----- Slash pine----- Turkey oak-----	--- --- 85 79 75 85 ---	--- --- 114 100 57 157 ---
Boykin-----	9S	Slight	Slight	Moderate	Slight	Moderate	Loblolly pine----- Shortleaf pine----- Longleaf pine----- Slash pine-----	85 75 75 85	120 120 90 153
Smithdale-----	9A	Slight	Slight	Slight	Slight	Slight	Loblolly pine----- Longleaf pine----- Slash pine-----	86 69 85	129 72 157

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB: Alaga-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00
AnA: Annemaine-----	85	Very limited Flooding Depth to saturated zone Slow water movement	1.00 0.98 0.96	Somewhat limited Slow water movement Depth to saturated zone	0.96 0.75	Somewhat limited Depth to saturated zone Slow water movement	0.98 0.96
BeB: Benndale-----	90	Not limited		Not limited		Somewhat limited Slope	0.12
BeC: Benndale-----	90	Not limited		Not limited		Very limited Slope	1.00
BeD: Benndale-----	90	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
BkA: Bibb-----	65	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 1.00
Iuka-----	25	Very limited Flooding Depth to saturated zone	1.00 0.39	Somewhat limited Flooding Depth to saturated zone	0.40 0.19	Very limited Flooding Depth to saturated zone	1.00 0.39
BmB: Bigbee-----	90	Very limited Flooding Too sandy	1.00 0.94	Somewhat limited Too sandy	0.94	Somewhat limited Too sandy	0.94
BoB2: Boswell-----	88	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00	Very limited Slow water movement Slope	1.00 0.12
BoC2: Boswell-----	82	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 0.01	Very limited Slow water movement Slope	1.00 1.00

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BsE2:							
Boykin-----	40	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.57	Too sandy	0.57	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.57
Luverne-----	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water	0.26	Slow water	0.26	Slow water	0.26
		movement		movement		movement	
Smithdale-----	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
BtD2:							
Brantley-----	70	Somewhat limited		Somewhat limited		Very limited	
		Slow water	0.96	Slow water	0.96	Slope	1.00
		movement		movement		Slow water	0.96
		Slope	0.16	Slope	0.16	movement	
Okeelala-----	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00
BtE2:							
Okeelala-----	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Brantley-----	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water	0.96	Slow water	0.96	Slow water	0.96
		movement		movement		movement	
BtG2:							
Okeelala-----	60	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Brantley-----	25	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water	0.96	Slow water	0.96	Slow water	0.96
		movement		movement		movement	
CaA:							
Cahaba-----	83	Not limited		Not limited		Not limited	
CaB:							
Cahaba-----	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
DgB:							
Dogue-----	90	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Slow water	0.26	Slow water	0.26
		Slow water	0.26	movement		movement	
		movement		Depth to	0.03	Depth to	0.07
		Depth to	0.07	saturated zone		saturated zone	
		saturated zone				Gravel	0.06
						Slope	0.03

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>FnA:</b>							
Fluvaquents, ponded-	100	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Flooding	1.00	Ponding	1.00	Flooding	1.00
		Ponding	1.00	Slow water	0.96	Ponding	1.00
		Slow water	0.96	movement		Slow water	0.96
		movement		Flooding	0.40	movement	
<b>FsA:</b>							
Freest-----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water	0.96	Slow water	0.96	Slow water	0.96
		movement		movement		movement	
		Depth to	0.39	Depth to	0.19	Depth to	0.39
		saturated zone		saturated zone		saturated zone	
<b>FsB:</b>							
Freest-----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water	0.96	Slow water	0.96	Slow water	0.96
		movement		movement		movement	
		Depth to	0.39	Depth to	0.19	Depth to	0.39
		saturated zone		saturated zone		saturated zone	
						Slope	0.12
<b>FsC:</b>							
Freest-----	85	Somewhat limited		Somewhat limited		Very limited	
		Slow water	0.96	Slow water	0.96	Slope	1.00
		movement		movement		Slow water	0.96
		Depth to	0.39	Depth to	0.19	movement	
		saturated zone		saturated zone		Depth to	0.39
						saturated zone	
<b>HaA:</b>							
Harleston-----	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.01	Too sandy	0.01	Gravel	0.22
						Too sandy	0.01
<b>HeD:</b>							
Heidel-----	90	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.37	Slope	0.37	Slope	1.00
		Too sandy	0.34	Too sandy	0.34	Too sandy	0.34
<b>HeE:</b>							
Heidel-----	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Too sandy	0.34	Too sandy	0.34	Too sandy	0.34
<b>IcB:</b>							
Ichusa-----	90	Very limited		Very limited		Very limited	
		Slow water	1.00	Slow water	1.00	Slow water	1.00
		movement		movement		movement	
		Depth to	0.07	Depth to	0.03	Slope	0.12
		saturated zone		saturated zone		Depth to	0.07
						saturated zone	

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
IrB:							
Irvington-----	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to	0.98	Depth to	0.75	Depth to	0.98
		saturated zone		saturated zone		saturated zone	
		Slow water	0.26	Slow water	0.26	Slope	0.50
		movement		movement		Gravel	0.44
						Slow water	0.26
						movement	
JnB:							
Jena-----	40	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
Una-----	20	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Flooding	1.00	Slow water	1.00	Flooding	1.00
		Slow water	1.00	movement		Slow water	1.00
				Flooding	0.40	movement	
Mantachie-----	17	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
LaA:							
Latonia-----	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.79	Too sandy	0.79	Too sandy	0.79
						Gravel	0.14
LfA:							
Leaf-----	85	Very limited		Very limited		Very limited	
		Depth to	1.00	Slow water	1.00	Depth to	1.00
		saturated zone		movement		saturated zone	
		Flooding	1.00	Depth to	0.99	Flooding	1.00
		Slow water	1.00	saturated zone		Slow water	1.00
				Flooding	0.40	movement	
LpA:							
Leeper-----	90	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Flooding	1.00	Slow water	1.00	Flooding	1.00
		Slow water	1.00	movement		Slow water	1.00
		movement		Flooding	0.40	movement	
LrD:							
Lorman-----	85	Very limited		Very limited		Very limited	
		Slow water	1.00	Slow water	1.00	Slope	1.00
		movement		movement		Slow water	1.00
		Slope	0.37	Slope	0.37	movement	
LrE:							
Lorman-----	90	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
		Slow water	1.00	Slow water	1.00	Slow water	1.00
		movement		movement		movement	

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtD:							
Lorman-----	50	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00	Very limited Slow water movement Slope	1.00 1.00
Petal-----	35	Somewhat limited Depth to saturated zone Slow water movement Slope	0.98 0.96 0.04	Somewhat limited Slow water movement Depth to saturated zone Slope	0.96 0.75 0.04	Very limited Slope Depth to saturated zone Slow water movement	1.00 0.98 0.96
LuA:							
Louin-----	90	Very limited Slow water movement Too clayey Depth to saturated zone	1.00 1.00 0.07	Very limited Slow water movement Too clayey Depth to saturated zone	1.00 1.00 0.03	Very limited Slow water movement Too clayey Depth to saturated zone	1.00 1.00 0.07
LvA:							
Lucedale-----	93	Not limited		Not limited		Not limited	
MaA:							
Malbis-----	90	Not limited		Not limited		Not limited	
MaB:							
Malbis-----	91	Not limited		Not limited		Somewhat limited Slope	0.12
MaC:							
Malbis-----	90	Not limited		Not limited		Very limited Slope	1.00
MbE:							
Maubila-----	40	Very limited Too steep Slow water movement Depth to saturated zone	1.00 0.96 0.39	Very limited Too steep Slow water movement Depth to saturated zone	1.00 0.96 0.19	Very limited Slope Slow water movement Depth to saturated zone	1.00 0.96 0.39
Olla-----	35	Very limited Too steep Slow water movement Too sandy	1.00 0.60 0.35	Very limited Too steep Slow water movement Too sandy	1.00 0.60 0.35	Very limited Slope Slow water movement Too sandy	1.00 0.60 0.35
Rattlesnake Forks---	25	Very limited Too steep Too sandy	1.00 0.36	Very limited Too steep Too sandy	1.00 0.36	Very limited Slope Too sandy	1.00 0.36
MdA:							
McCrory-----	60	Very limited Depth to saturated zone Sodium content Flooding Slow water movement	1.00 1.00 1.00 0.96	Very limited Depth to saturated zone Sodium content Slow water movement	1.00 1.00 0.96	Very limited Depth to saturated zone Sodium content Slow water movement Flooding	1.00 1.00 0.96 0.60

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MdA:							
Deerford-----	30	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Sodium content	1.00	Sodium content	1.00	Sodium content	1.00
		Flooding	1.00	Slow water	0.96	Slow water	0.96
		Slow water	0.96	movement		movement	
						Flooding	0.60
MrA:							
McLaurin-----	90	Not limited		Not limited		Not limited	
MrB:							
McLaurin-----	85	Not limited		Not limited		Somewhat limited	
						Slope	0.12
MrC:							
McLaurin-----	85	Not limited		Not limited		Very limited	
						Slope	1.00
OmC:							
Olla-----	40	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water	0.60	Slow water	0.60	Slope	0.88
		movement		movement		Slow water	0.60
		Too sandy	0.35	Too sandy	0.35	movement	
						Too sandy	0.35
Maubila-----	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water	0.96	Slow water	0.96	Slow water	0.96
		movement		movement		movement	
		Depth to	0.39	Depth to	0.19	Slope	0.88
		saturated zone		saturated zone		Depth to	0.39
						saturated zone	
PaA:							
Paxville, ponded----	95	Very limited		Very limited		Very limited	
		Depth to	1.00	Ponding	1.00	Depth to	1.00
		saturated zone		Depth to	1.00	saturated zone	
		Ponding	1.00	saturated zone		Ponding	1.00
Pd:							
Pits-----	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Too steep	1.00	Slope	1.00
Udorthents-----	45	Not rated		Not rated		Not rated	
PeA:							
Prentiss-----	90	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to cemented	0.80	Depth to cemented	0.80	Slow water	0.69
		pan		pan		movement	
		Slow water	0.69	Slow water	0.69	Depth to	0.07
		movement		movement		saturated zone	
		Depth to	0.07	Depth to	0.03		
		saturated zone		saturated zone			
PwD:							
Prim-----	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Large stones	0.16	Large stones	0.16	Gravel	0.88
		content		content		Slope	0.50
						Large stones	0.16
						content	

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwD:							
Suggsville-----	35	Very limited Slow water movement Too clayey	1.00 1.00	Very limited Slow water movement Too clayey	1.00 1.00	Very limited Slow water movement Slope Too clayey	1.00 1.00 1.00
Watsonia-----	20	Very limited Slow water movement Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Slow water movement Too clayey Depth to bedrock	1.00 1.00 1.00	Very limited Slow water movement Depth to bedrock Too clayey Slope	1.00 1.00 1.00 1.00 0.88
PwF:							
Prim-----	50	Very limited Too steep Depth to bedrock Large stones content	1.00 1.00 0.16	Very limited Too steep Depth to bedrock Large stones content	1.00 1.00 0.16	Very limited Slope Depth to bedrock Gravel Large stones content	1.00 1.00 0.88 0.16
Suggsville-----	20	Very limited Slow water movement Too steep Too clayey	1.00 1.00 1.00	Very limited Slow water movement Too steep Too clayey	1.00 1.00 1.00	Very limited Slope Slow water movement Too clayey	1.00 1.00 1.00
Watsonia-----	20	Very limited Slow water movement Too steep Depth to bedrock Too clayey	1.00 1.00 1.00 1.00	Very limited Slow water movement Too steep Too clayey Depth to bedrock	1.00 1.00 1.00 1.00	Very limited Slope Slow water movement Depth to bedrock Too clayey	1.00 1.00 1.00 1.00
QtA:							
Quitman-----	85	Somewhat limited Depth to saturated zone Slow water movement	0.77 0.21	Somewhat limited Depth to saturated zone Slow water movement	0.43 0.21	Somewhat limited Depth to saturated zone Slow water movement	0.77 0.21
RuA:							
Ruston-----	88	Not limited		Not limited		Not limited	
RuB:							
Ruston-----	87	Not limited		Not limited		Somewhat limited Slope	0.12
RuC:							
Ruston-----	85	Not limited		Not limited		Very limited Slope	1.00
SaA:							
Savannah-----	87	Somewhat limited Depth to saturated zone	0.07	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Depth to saturated zone	0.07

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaB: Savannah-----	85	Somewhat limited Depth to saturated zone	0.07	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Slope Depth to saturated zone	0.12 0.07
SaC: Savannah-----	87	Somewhat limited Depth to saturated zone	0.07	Somewhat limited Depth to saturated zone	0.03	Very limited Slope Depth to saturated zone	1.00 0.07
ShB: Shubuta-----	81	Somewhat limited Slow water movement	0.21	Somewhat limited Slow water movement	0.21	Somewhat limited Slope Slow water movement	0.50 0.21
SmD: Smithdale-----	85	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
SmE: Smithdale-----	85	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
SoA: Stough-----	90	Very limited Depth to saturated zone Flooding Slow water movement	1.00 1.00 0.21	Somewhat limited Depth to saturated zone Slow water movement	0.94 0.21	Very limited Depth to saturated zone Flooding Slow water movement	1.00 0.60 0.21
StC2: Sumter-----	50	Not limited		Not limited		Very limited Slope Depth to bedrock	1.00 0.71
Maytag-----	40	Somewhat limited Slow water movement	0.96	Somewhat limited Slow water movement	0.96	Very limited Slope Slow water movement	1.00 0.96
SuB: Susquehanna-----	80	Very limited Slow water movement	1.00	Very limited Slow water movement	1.00	Very limited Slow water movement Slope	1.00 0.12
TbA: Trebloc, ponded----	85	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00 1.00 1.00 0.21	Very limited Depth to saturated zone Ponding Flooding Slow water movement	1.00 1.00 0.40 0.21	Very limited Depth to saturated zone Flooding Ponding Slow water movement	1.00 1.00 1.00 0.21

# Soil Survey of Wayne County, Mississippi

Table 8a.--Recreation (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UaB:							
Una-----	60	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Depth to	1.00
		saturated zone		saturated zone		saturated zone	
		Flooding	1.00	Slow water	1.00	Flooding	1.00
		Slow water	1.00	movement		Slow water	1.00
		movement		Ponding	1.00	movement	
		Ponding	1.00	Flooding	0.40	Ponding	1.00
Urbo-----	30	Very limited		Very limited		Very limited	
		Flooding	1.00	Slow water	1.00	Flooding	1.00
		Slow water	1.00	movement		Slow water	1.00
		movement		Depth to	0.75	movement	
		Depth to	0.98	saturated zone		Depth to	0.98
		saturated zone		Flooding	0.40	saturated zone	
WaB:							
Wadley-----	90	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
						Slope	0.12
WsD:							
Wadley-----	55	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Too sandy	1.00
		Slope	0.37	Slope	0.37	Slope	1.00
Boykin-----	20	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.57	Too sandy	0.57	Slope	1.00
		Slope	0.16	Slope	0.16	Too sandy	0.57
Smithdale-----	20	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.16	Slope	0.16	Slope	1.00

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB: Alaga-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Droughty	0.69
AnA: Annemaine-----	85	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
BeB: Benndale-----	90	Not limited		Not limited		Not limited	
BeC: Benndale-----	90	Not limited		Not limited		Not limited	
BeD: Benndale-----	90	Not limited		Not limited		Somewhat limited Slope	0.37
BkA: Bibb-----	65	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone Too dense	1.00 1.00 1.00
Iuka-----	25	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding Depth to saturated zone	1.00 0.19
BmB: Bigbee-----	90	Somewhat limited Too sandy	0.94	Somewhat limited Too sandy	0.94	Somewhat limited Droughty	0.69
BoB2: Boswell-----	88	Not limited		Not limited		Not limited	
BoC2: Boswell-----	82	Not limited		Not limited		Somewhat limited Slope	0.01
BsE2: Boykin-----	40	Somewhat limited Too sandy	0.57	Somewhat limited Too sandy	0.57	Somewhat limited Slope Droughty	0.16 0.06
Luverne-----	25	Very limited Slope	1.00	Not limited		Very limited Too steep	1.00
Smithdale-----	25	Very limited Slope	1.00	Not limited		Very limited Too steep	1.00

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BtD2:							
Brantley-----	70	Not limited		Not limited		Somewhat limited Slope	0.16
Okeelala-----	20	Not limited		Not limited		Somewhat limited Slope	0.16
BtE2:							
Okeelala-----	60	Somewhat limited Slope	0.50	Not limited		Very limited Too steep	1.00
Brantley-----	25	Very limited Slope	1.00	Not limited		Very limited Too steep	1.00
BtG2:							
Okeelala-----	60	Somewhat limited Slope	0.50	Not limited		Very limited Too steep	1.00
Brantley-----	25	Very limited Slope	1.00	Not limited		Very limited Too steep	1.00
CaA:							
Cahaba-----	83	Not limited		Not limited		Not limited	
CaB:							
Cahaba-----	85	Not limited		Not limited		Not limited	
DgB:							
Dogue-----	90	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
FnA:							
Fluvaquents, ponded-	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Flooding	1.00
		Ponding	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	0.40	Flooding	0.40	Ponding	1.00
FsA:							
Freest-----	85	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
FsB:							
Freest-----	85	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
FsC:							
Freest-----	85	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.19
HaA:							
Harleston-----	90	Somewhat limited Too sandy	0.01	Somewhat limited Too sandy	0.01	Not limited	

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HeD: Heidel-----	90	Somewhat limited Too sandy	0.34	Somewhat limited Too sandy	0.34	Somewhat limited Slope	0.37
HeE: Heidel-----	90	Somewhat limited Slope Too sandy	0.92 0.34	Somewhat limited Too sandy	0.34	Very limited Too steep	1.00
IcB: Ichusa-----	90	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
IrB: Irvington-----	85	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.75
JnB: Jena-----	40	Somewhat limited Flooding	0.40	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
Una-----	20	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
Mantachie-----	17	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
LaA: Latonia-----	90	Somewhat limited Too sandy	0.79	Somewhat limited Too sandy	0.79	Not limited	
LfA: Leaf-----	85	Somewhat limited Depth to saturated zone Flooding	0.99 0.40	Somewhat limited Depth to saturated zone Flooding	0.99 0.40	Very limited Flooding Depth to saturated zone	1.00 0.99
LpA: Leeper-----	90	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
LrD: Lorman-----	85	Not limited		Not limited		Somewhat limited Slope	0.37
LrE: Lorman-----	90	Very limited Slope	1.00	Somewhat limited Slope	0.08	Very limited Too steep	1.00
LtD: Lorman-----	50	Not limited		Not limited		Not limited	

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LtD: Petal-----	35	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone	0.44	Somewhat limited Depth to saturated zone Slope	0.75 0.04
LuA: Louin-----	90	Very limited Too clayey	1.00	Very limited Too clayey	1.00	Very limited Too clayey Depth to saturated zone	1.00 0.03
LvA: Lucedale-----	93	Not limited		Not limited		Not limited	
MaA: Malbis-----	90	Not limited		Not limited		Not limited	
MaB: Malbis-----	91	Not limited		Not limited		Not limited	
MaC: Malbis-----	90	Not limited		Not limited		Not limited	
MbE: Maubila-----	40	Somewhat limited Slope	0.50	Not limited		Very limited Too steep Large stones Depth to saturated zone	1.00 0.68 0.19
Olla-----	35	Somewhat limited Slope Too sandy	0.50 0.35	Somewhat limited Too sandy	0.35	Very limited Too steep	1.00
Rattlesnake Forks---	25	Somewhat limited Too sandy	0.36	Somewhat limited Too sandy	0.36	Very limited Too steep Droughty	1.00 0.34
MdA: McCrory-----	60	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Sodium content Depth to saturated zone Flooding	1.00 1.00 0.60
Deerford-----	30	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Sodium content Depth to saturated zone Flooding	1.00 1.00 0.60
MrA: McLaurin-----	90	Not limited		Not limited		Not limited	
MrB: McLaurin-----	85	Not limited		Not limited		Not limited	
MrC: McLaurin-----	85	Not limited		Not limited		Not limited	

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OmC:							
Olla-----	40	Somewhat limited Too sandy	0.35	Somewhat limited Too sandy	0.35	Not limited	
Maubila-----	35	Not limited		Not limited		Somewhat limited Large stones Depth to saturated zone	0.68 0.19
PaA:							
Paxville, ponded----	95	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
Pd:							
Pits-----	50	Very limited Slope	1.00	Somewhat limited Slope	0.32	Very limited Too steep	1.00
Udorthents-----	45	Not rated		Not rated		Not rated	
PeA:							
Prentiss-----	90	Not limited		Not limited		Somewhat limited Depth to cemented pan Depth to saturated zone	0.79 0.03
PwD:							
Prim-----	40	Somewhat limited Large stones content	0.16	Somewhat limited Large stones content	0.16	Very limited Droughty Carbonate content Depth to bedrock Large stones	1.00 1.00 1.00 1.00
Suggsville-----	35	Very limited Too clayey	1.00	Very limited Too clayey	1.00	Very limited Too clayey	1.00
Watsonia-----	20	Very limited Too clayey	1.00	Very limited Too clayey	1.00	Very limited Depth to bedrock Too clayey Droughty	1.00 1.00 0.99
PwF:							
Prim-----	50	Very limited Slope Large stones content	1.00 0.16	Somewhat limited Slope Large stones content	0.22 0.16	Very limited Droughty Carbonate content Depth to bedrock Large stones Too steep	1.00 1.00 1.00 1.00 1.00
Suggsville-----	20	Very limited Slope Too clayey	1.00 1.00	Very limited Too clayey Slope	1.00 0.22	Very limited Too steep Too clayey	1.00 1.00 1.00
Watsonia-----	20	Very limited Slope Too clayey	1.00 1.00	Very limited Too clayey Slope	1.00 0.22	Very limited Depth to bedrock Too steep Too clayey Droughty	1.00 1.00 1.00 0.99

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
QtA: Quitman-----	85	Somewhat limited Depth to saturated zone	0.08	Somewhat limited Depth to saturated zone	0.08	Somewhat limited Depth to saturated zone	0.43
RuA: Ruston-----	88	Not limited		Not limited		Not limited	
RuB: Ruston-----	87	Not limited		Not limited		Not limited	
RuC: Ruston-----	85	Not limited		Not limited		Not limited	
SaA: Savannah-----	87	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
SaB: Savannah-----	85	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
SaC: Savannah-----	87	Not limited		Not limited		Somewhat limited Depth to saturated zone	0.03
ShB: Shubuta-----	81	Not limited		Not limited		Not limited	
SmD: Smithdale-----	85	Not limited		Not limited		Somewhat limited Slope	0.16
SmE: Smithdale-----	85	Very limited Slope	1.00	Not limited		Very limited Too steep	1.00
SoA: Stough-----	90	Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone Flooding Droughty	0.94 0.60 0.01
StC2: Sumter-----	50	Not limited		Not limited		Very limited Carbonate content Depth to bedrock	1.00 0.71
Maytag-----	40	Not limited		Not limited		Very limited Carbonate content	1.00
SuB: Susquehanna-----	80	Not limited		Not limited		Not limited	

# Soil Survey of Wayne County, Mississippi

Table 8b.--Recreation (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Paths and trails		Off-road motorcycle trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TbA: Trebloc, ponded-----	85	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
UaB: Una-----	60	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Depth to saturated zone Ponding Flooding	1.00 1.00 0.40	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
Urbo-----	30	Somewhat limited Depth to saturated zone Flooding	0.44 0.40	Somewhat limited Depth to saturated zone Flooding	0.44 0.40	Very limited Flooding Depth to saturated zone	1.00 0.75
WaB: Wadley-----	90	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Not limited	
WsD: Wadley-----	55	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Somewhat limited Slope	0.37
Boykin-----	20	Somewhat limited Too sandy	0.57	Somewhat limited Too sandy	0.57	Somewhat limited Slope Droughty	0.16 0.06
Smithdale-----	20	Not limited		Not limited		Somewhat limited Slope	0.16

Table 9.--Wildlife Habitat

[See text for definitions of terms used in this table. Absence of an entry indicates that n

Map symbol and soil name	Potential for habitat elements										Pot
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Oper	wil		
AgB: Alaga-----	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fai	Fai		
AnA: Annemaine-----	Good	Good	Good	Good	Good	Good	Good	Good	Good		
BeB: Benndale-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
BeC: Benndale-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good		
BeD: Benndale-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good		
BkA: Bibb-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fai	Fai		
Iuka-----	Poor	Fair	Fair	Good	Good	Poor	Poor	Fai	Fai		
BmB: Bigbee-----	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fai	Fai		
BoE2: Boswell-----	Fair	Fair	Good	Good	Good	Poor	Very poor	Fai	Fai		
BoC2: Boswell-----	Fair	Fair	Good	Good	Good	Very poor	Very poor	Fai	Fai		
BsE2: Boykin-----	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fai	Fai		
Luverne-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fai	Fai		

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Pot
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open willow areas			
BsE2: Smithdale-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Fair	Open willow areas	
BtD2: Brantley-----	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Fair		
Okeelala-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Fair		
BtE2: Okeelala-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Fair		
Brantley-----	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Fair		
BtG2: Okeelala-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Fair		
Brantley-----	Poor	Fair	Good	Good	Good	Poor	Very poor	Fair	Fair		
CaA: Cahaba-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
CaB: Cahaba-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
DgB: Dogue-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
FnA: Fluvaquents , ponded-----	Very poor	Poor	Poor	Very poor	Very poor	Good	Good	Poor	Poor		
FsA: Freest-----	Good	Good	Good	Good	Good	Poor	Poor	Poor	Poor	Good	

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Potential
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open willow areas			
FSB: Freest-----	Good	Good	Good	Good	Good	Poor	Very poor	Good			Good
FSC: Freest-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good			Good
HA: Harleston-----	Good	Good	Good	Good	Good	Poor	Poor	Good			Good
HeD: Heidel-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good			Good
HeE: Heidel-----	Very poor	Very poor	Good	Good	Good	Poor	Very poor	Poor			Poor
ICB: Ichusa-----	Fair	Good	Good	Good	Good	Poor	Fair	Good			Good
IRB: Irvington-----	Good	Good	Good	Good	Good	Poor	Very poor	Good			Good
JnB: Jena-----	Poor	Fair	Fair	Good	Good	Poor	Poor	Fair			Fair
Una-----	Very poor	Very poor	Very poor	Poor	Poor	Good	Good	Very poor			Very poor
Mantachie-----	Poor	Fair	Fair	Good	Fair	Fair	Fair	Fair			Fair
LaA: Latonia-----	Good	Good	Good	Good	Poor	Very poor	Very poor	Good			Good
LfA: Leaf-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair			Fair
LpA: Leeper-----	Poor	Fair	Fair	Good	Poor	Fair	Good	Good			Fair

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Potential
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open willow areas			Potential
LrD: Lorman-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good			Good
LrE: Lorman-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair			Fair
LtD: Lorman-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good			Good
Petal-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good			Good
LuA: Louin-----	Fair	Good	Good	Good	Good	Fair	Fair	Good			Good
LvA: Lucedale-----	Good	Good	Good	Good	Good	Very poor	Very poor	Good			Good
MA: Malbis-----	Good	Good	Good	Good	Good	Poor	Very poor	Good			Good
MaB: Malbis-----	Good	Good	Good	Good	Good	Poor	Very poor	Good			Good
MaC: Malbis-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good			Good
MbE: Maubila-----	Fair	Fair	Good	Good	Good	Very poor	Very poor	Good			Good
Olla-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good			Good
Rattlesnake Forks-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good			Good

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Pot
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas				
MdA: McCrory-----	Fair	Fair	Fair	Fair	Fair	Good	Fair	Fair	Fair	Shallow water areas	
Deerford-----	Fair	Good	Good	Fair	Good	Fair	Fair	Fair	Fair		
MrA: McLaurin-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
MrB: McLaurin-----	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good		
MrC: McLaurin-----	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good		
OmC: Olla-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good		
Maubila-----	Fair	Fair	Good	Good	Good	Very poor	Very poor	Good	Good		
PaA: Paxville, ponded-----	Poor	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair		
Pd: Pits. Udorthents.											
PeA: Prentiss-----	Fair	Good	Good	Good	Good	Poor	Poor	Good	Good		
PwD: Prim-----	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor		
Suggsville-----	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Fair		
Watsonia-----	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Poor		

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Pot
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas	Open willow areas			
PwF: Prim-----	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor		Poor	
Suggsville-----	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair		Fair	
Watsonia-----	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor		Poor	
QtA: Quitman-----	Good	Good	Good	Good	Fair	Fair	Poor	Good		Good	
RuA: Ruston-----	Good	Good	Good	Good	Good	Poor	Very poor	Good		Good	
RuB: Ruston-----	Good	Good	Good	Good	Good	Poor	Very poor	Good		Good	
RuC: Ruston-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good		Good	
SaA: Savannah-----	Good	Good	Good	Good	Good	Poor	Very poor	Good		Good	
SaB: Savannah-----	Good	Good	Good	Good	Good	Poor	Very poor	Good		Good	
SaC: Savannah-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good		Good	
ShB: Shubuta-----	Good	Good	Good	Good	Good	Poor	Very poor	Good		Good	
SmD: Smithdale-----	Fair	Good	Good	Good	Good	Very poor	Very poor	Good		Good	

Table 9.--Wildlife Habitat--Continued

Map symbol and soil name	Potential for habitat elements										Pot
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hardwood trees	Conif- erous plants	Wetland plants	Shallow water areas				
SmE: Smithdale-----	Very poor	Fair	Good	Good	Good	Very poor	Very poor				
SoA: Stough-----	Fair	Good	Good	Good	Good	Fair	Fair				
StC2: Sumter-----	Fair	Fair	Fair	Fair	Fair	Poor	Poor				
Maytag-----	Fair	Fair	Fair	Fair	Fair	Poor	Poor				
SuB: Susquehanna-----	Fair	Good	Good	Good	Good	Very poor	Very poor				
TbA: Trebloc, ponded-----	Poor	Fair	Fair	Fair	Fair	Good	Good				
UaB: Una-----	Very poor	Very poor	Very poor	Poor	Poor	Good	Good				
Urbo-----	Poor	Fair	Fair	Good	Fair	Fair	Fair				
WaB: Wadley-----	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor				
WsD: Wadley-----	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor				
Boykin-----	Poor	Fair	Good	Good	Good	Very poor	Very poor				
Smithdale-----	Fair	Good	Good	Good	Good	Very poor	Very poor				

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB: Alaga-----	90	Not limited		Not limited		Not limited	
AnA: Annemaine-----	85	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50
BeB: Benndale-----	90	Not limited		Not limited		Not limited	
BeC: Benndale-----	90	Not limited		Not limited		Somewhat limited Slope	0.50
BeD: Benndale-----	90	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
BkA: Bibb-----	65	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Iuka-----	25	Very limited Flooding Depth to saturated zone	1.00 0.39	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.39
BmB: Bigbee-----	90	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
BoB2: Boswell-----	88	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
BoC2: Boswell-----	82	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 0.01	Very limited Shrink-swell Slope	1.00 1.00
BsE2: Boykin-----	40	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
Luverne-----	25	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Smithdale-----	25	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BtD2:							
Brantley-----	70	Somewhat limited Shrink-swell Slope	0.50 0.16	Somewhat limited Shrink-swell Slope	0.50 0.16	Very limited Slope Shrink-swell	1.00 0.50
Okeelala-----	20	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
BtE2:							
Okeelala-----	60	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
Brantley-----	25	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
BtG2:							
Okeelala-----	60	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
Brantley-----	25	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
CaA:							
Cahaba-----	83	Not limited		Not limited		Not limited	
CaB:							
Cahaba-----	85	Not limited		Not limited		Not limited	
DgB:							
Dogue-----	90	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 0.50 0.07
FnA:							
Fluvaquents, ponded-	100	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
FsA:							
Freest-----	85	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39
FsB:							
Freest-----	85	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>FsC:</b>							
Freest-----	85	Somewhat limited Shrink-swell	0.50	Very limited Depth to	1.00	Somewhat limited Slope	0.50
		Depth to saturated zone	0.39	saturated zone Shrink-swell	1.00	Shrink-swell Depth to	0.50
						saturated zone	0.39
<b>HaA:</b>							
Harleston-----	90	Not limited		Somewhat limited Depth to	0.99	Not limited	
				saturated zone			
<b>HeD:</b>							
Heidel-----	90	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
<b>HeE:</b>							
Heidel-----	90	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
<b>IcB:</b>							
Ichusa-----	90	Very limited Shrink-swell	1.00	Very limited Depth to	1.00	Very limited Shrink-swell	1.00
		Depth to saturated zone	0.07	saturated zone Shrink-swell	1.00	Depth to saturated zone	0.07
<b>IrB:</b>							
Irrington-----	85	Somewhat limited Depth to	0.98	Very limited Depth to	1.00	Somewhat limited Depth to	0.98
		saturated zone		saturated zone		saturated zone	
<b>JnB:</b>							
Jena-----	40	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
<b>Una-----</b>	20	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
<b>Mantachie-----</b>	17	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
<b>LaA:</b>							
Latonia-----	90	Not limited		Not limited		Not limited	
<b>LfA:</b>							
Leaf-----	85	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LpA:							
Leeper-----	90	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 1.00
LrD:							
Lorman-----	85	Very limited Shrink-swell Slope	1.00 0.37	Very limited Shrink-swell Slope	1.00 0.37	Very limited Slope Shrink-swell	1.00 1.00
LrE:							
Lorman-----	90	Very limited Too steep Shrink-swell	1.00 1.00	Very limited Too steep Shrink-swell	1.00 1.00	Very limited Slope Shrink-swell	1.00 1.00
LtD:							
Lorman-----	50	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.88
Petal-----	35	Somewhat limited Depth to saturated zone Shrink-swell Slope	0.98 0.50 0.04	Very limited Depth to saturated zone Shrink-swell Slope	1.00 1.00 0.04	Very limited Slope Depth to saturated zone Shrink-swell	1.00 0.98 0.50
LuA:							
Louin-----	90	Very limited Shrink-swell Depth to saturated zone	1.00 0.07	Very limited Depth to saturated zone Shrink-swell	1.00 1.00	Very limited Shrink-swell Depth to saturated zone	1.00 0.07
LvA:							
Lucedale-----	93	Not limited		Not limited		Not limited	
MaA:							
Malbis-----	90	Not limited		Somewhat limited Depth to saturated zone	0.90	Not limited	
MaB:							
Malbis-----	91	Not limited		Somewhat limited Depth to saturated zone	0.90	Not limited	
MaC:							
Malbis-----	90	Not limited		Somewhat limited Depth to saturated zone	0.90	Somewhat limited Slope	0.50
MbE:							
Maubila-----	40	Very limited Too steep Shrink-swell Depth to saturated zone	1.00 0.50 0.39	Very limited Depth to saturated zone Too steep Shrink-swell	1.00 1.00 0.50	Very limited Slope Shrink-swell Depth to saturated zone	1.00 0.50 0.39

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>MbE:</b>							
Olla-----	35	Very limited Too steep	1.00	Very limited Too steep Shrink-swell	1.00 0.50	Very limited Slope	1.00
Rattlesnake Forks---	25	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
<b>MdA:</b>							
McCrory-----	60	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Deerford-----	30	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
<b>MrA:</b>							
McLaurin-----	90	Not limited		Not limited		Not limited	
<b>MrB:</b>							
McLaurin-----	85	Not limited		Not limited		Not limited	
<b>MrC:</b>							
McLaurin-----	85	Not limited		Not limited		Somewhat limited Slope	0.88
<b>OmC:</b>							
Olla-----	40	Not limited		Somewhat limited Shrink-swell	0.50	Somewhat limited Slope	0.12
Maubila-----	35	Somewhat limited Shrink-swell Depth to saturated zone	0.50 0.39	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Somewhat limited Shrink-swell Depth to saturated zone Slope	0.50 0.39 0.12
<b>PaA:</b>							
Paxville, ponded----	95	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
<b>Pd:</b>							
Pits-----	50	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
Udorthents-----	45	Not rated		Not rated		Not rated	
<b>PeA:</b>							
Prentiss-----	90	Somewhat limited Depth to saturated zone	0.07	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.07

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwD:							
Prim-----	40	Somewhat limited		Very limited		Somewhat limited	
		Large stones	0.92	Depth to soft	1.00	Depth to soft	1.00
		Shrink-swell	0.50	bedrock		bedrock	
		Depth to soft	0.50	Large stones	0.92	Large stones	0.92
		bedrock		Shrink-swell	0.50	Shrink-swell	0.50
Suggsville-----	35	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
						Slope	0.50
Watsonia-----	20	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Depth to soft	1.00
		Depth to soft	0.50	Depth to soft	1.00	bedrock	
		bedrock		bedrock		Shrink-swell	1.00
						Slope	0.12
PwF:							
Prim-----	50	Very limited		Very limited		Very limited	
		Too steep	1.00	Depth to soft	1.00	Slope	1.00
		Large stones	0.92	bedrock		Depth to soft	1.00
		Shrink-swell	0.50	Too steep	1.00	bedrock	
		Depth to soft	0.50	Large stones	0.92	Large stones	0.92
		bedrock		Shrink-swell	0.50	Shrink-swell	0.50
Suggsville-----	20	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Too steep	1.00	Too steep	1.00	Shrink-swell	1.00
Watsonia-----	20	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Shrink-swell	1.00	Slope	1.00
		Too steep	1.00	Depth to soft	1.00	Depth to soft	1.00
		Depth to soft	0.50	bedrock		bedrock	
		bedrock		Too steep	1.00	Shrink-swell	1.00
QtA:							
Quitman-----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to	0.77	Depth to	1.00	Depth to	0.77
		saturated zone		saturated zone		saturated zone	
RuA:							
Ruston-----	88	Not limited		Not limited		Not limited	
RuB:							
Ruston-----	87	Not limited		Not limited		Not limited	
RuC:							
Ruston-----	85	Not limited		Not limited		Somewhat limited	
						Slope	0.50
SaA:							
Savannah-----	87	Somewhat limited		Very limited		Somewhat limited	
		Depth to	0.07	Depth to	1.00	Depth to	0.07
		saturated zone		saturated zone		saturated zone	
SaB:							
Savannah-----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to	0.07	Depth to	1.00	Depth to	0.07
		saturated zone		saturated zone		saturated zone	

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaC: Savannah-----	87	Somewhat limited Depth to saturated zone	0.07	Very limited Depth to saturated zone	1.00	Somewhat limited Slope Depth to saturated zone	0.88 0.07
ShB: Shubuta-----	81	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
SmD: Smithdale-----	85	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
SmE: Smithdale-----	85	Very limited Too steep	1.00	Very limited Too steep	1.00	Very limited Slope	1.00
SoA: Stough-----	90	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
StC2: Sumter-----	50	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.71	Very limited Shrink-swell Slope	1.00 0.50
Maytag-----	40	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.50
SuB: Susquehanna-----	80	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
TbA: Trebloc, ponded----	85	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Ponding Shrink-swell	1.00 1.00 1.00 0.50
UaB: Una-----	60	Very limited Flooding Depth to saturated zone Shrink-swell Ponding	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell Ponding	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Shrink-swell Ponding	1.00 1.00 1.00 1.00
Urbo-----	30	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 1.00 0.50	Very limited Flooding Depth to saturated zone Shrink-swell	1.00 0.98 0.50

# Soil Survey of Wayne County, Mississippi

Table 10a.--Building Site Development (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WaB:							
Wadley-----	90	Not limited		Not limited		Not limited	
WsD:							
Wadley-----	55	Somewhat limited Slope	0.37	Somewhat limited Slope	0.37	Very limited Slope	1.00
Boykin-----	20	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00
Smithdale-----	20	Somewhat limited Slope	0.16	Somewhat limited Slope	0.16	Very limited Slope	1.00

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB: Alaga-----	90	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.69
AnA: Annemaine-----	85	Very limited Low strength Depth to saturated zone Shrink-swell Flooding	1.00 0.75 0.50 0.40	Very limited Depth to saturated zone Too clayey Cutbanks cave	1.00 0.28 0.10	Somewhat limited Depth to saturated zone	0.75
BeB: Benndale-----	90	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
BeC: Benndale-----	90	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
BeD: Benndale-----	90	Somewhat limited Slope	0.37	Somewhat limited Slope Cutbanks cave	0.37 0.10	Somewhat limited Slope	0.37
BkA: Bibb-----	65	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone Too dense	1.00 1.00 1.00
Iuka-----	25	Very limited Flooding Depth to saturated zone	1.00 0.19	Very limited Depth to saturated zone Cutbanks cave Flooding	1.00 1.00 0.80	Very limited Flooding Depth to saturated zone	1.00 0.19
BmB: Bigbee-----	90	Somewhat limited Flooding	0.40	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.69
BoB2: Boswell-----	88	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.41 0.10	Not limited	
BoC2: Boswell-----	82	Very limited Low strength Shrink-swell Slope	1.00 1.00 0.01	Somewhat limited Too clayey Cutbanks cave Slope	0.41 0.10 0.01	Somewhat limited Slope	0.01

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BsE2:							
Boykin-----	40	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16	Somewhat limited Slope Droughty	0.16 0.06
Luverne-----	25	Very limited Too steep Low strength Shrink-swell	1.00 1.00 0.50	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
Smithdale-----	25	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
BtD2:							
Brantley-----	70	Very limited Low strength Shrink-swell Slope	1.00 0.50 0.16	Somewhat limited Slope Cutbanks cave	0.16 0.10	Somewhat limited Slope	0.16
Okeelala-----	20	Somewhat limited Slope	0.16	Somewhat limited Slope Cutbanks cave	0.16 0.10	Somewhat limited Slope	0.16
BtE2:							
Okeelala-----	60	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
Brantley-----	25	Very limited Too steep Low strength Shrink-swell	1.00 1.00 0.50	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
BtG2:							
Okeelala-----	60	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
Brantley-----	25	Very limited Too steep Low strength Shrink-swell	1.00 1.00 0.50	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
CaA:							
Cahaba-----	83	Not limited		Very limited Cutbanks cave	1.00	Not limited	
CaB:							
Cahaba-----	85	Not limited		Very limited Cutbanks cave	1.00	Not limited	
DgB:							
Dogue-----	90	Very limited Low strength Shrink-swell Flooding Depth to saturated zone	1.00 0.50 0.40 0.03	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 0.10 0.03	Somewhat limited Depth to saturated zone	0.03

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>FnA:</b> Fluvaquents, ponded-	100	Very limited Depth to saturated zone Flooding Low strength Ponding	1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Cutbanks cave	1.00 1.00 1.00 0.80 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
<b>FsA:</b> Freest-----	85	Somewhat limited Shrink-swell Low strength Depth to saturated zone	0.50 0.22 0.19	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.10 0.04	Somewhat limited Depth to saturated zone	0.19
<b>FsB:</b> Freest-----	85	Somewhat limited Shrink-swell Low strength Depth to saturated zone	0.50 0.22 0.19	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.10 0.04	Somewhat limited Depth to saturated zone	0.19
<b>FsC:</b> Freest-----	85	Somewhat limited Shrink-swell Low strength Depth to saturated zone	0.50 0.22 0.19	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.10 0.04	Somewhat limited Depth to saturated zone	0.19
<b>HaA:</b> Harleston-----	90	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.99 0.10	Not limited	
<b>HeD:</b> Heidel-----	90	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
<b>HeE:</b> Heidel-----	90	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 1.00	Very limited Too steep	1.00
<b>IcB:</b> Ichusa-----	90	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.03	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 1.00 0.50	Somewhat limited Depth to saturated zone	0.03
<b>IrB:</b> Irvington-----	85	Somewhat limited Depth to saturated zone	0.75	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Somewhat limited Depth to saturated zone	0.75
<b>JnB:</b> Jena-----	40	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding	1.00

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
JnB:							
Una-----	20	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Flooding	1.00
		saturated zone		saturated zone		Depth to	1.00
		Flooding	1.00	Flooding	0.80	saturated zone	
		Low strength	1.00	Too clayey	0.28		
		Shrink-swell	1.00	Cutbanks cave	0.10		
Mantachie-----	17	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Flooding	1.00
		saturated zone		saturated zone		Depth to	1.00
		Flooding	1.00	Flooding	0.80	saturated zone	
		Low strength	1.00	Cutbanks cave	0.10		
LaA:							
Latonia-----	90	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
LfA:							
Leaf-----	85	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to	1.00	Flooding	1.00
		Low strength	1.00	saturated zone		Depth to	0.99
		Shrink-swell	1.00	Flooding	0.80	saturated zone	
		Depth to	0.99	Too clayey	0.28		
		saturated zone		Cutbanks cave	0.10		
LpA:							
Leeper-----	90	Very limited		Very limited		Very limited	
		Depth to	1.00	Depth to	1.00	Flooding	1.00
		saturated zone		saturated zone		Depth to	1.00
		Flooding	1.00	Flooding	0.80	saturated zone	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00	Too clayey	0.03		
LrD:							
Lorman-----	85	Very limited		Somewhat limited		Somewhat limited	
		Shrink-swell	1.00	Slope	0.37	Slope	0.37
		Slope	0.37	Too clayey	0.12		
				Cutbanks cave	0.10		
LrE:							
Lorman-----	90	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Too steep	1.00	Too steep	1.00
		Too steep	1.00	Too clayey	0.12		
				Cutbanks cave	0.10		
LtD:							
Lorman-----	50	Very limited		Somewhat limited		Not limited	
		Shrink-swell	1.00	Too clayey	0.12		
				Cutbanks cave	0.10		
Petal-----	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to	0.75	Depth to	1.00	Depth to	0.75
		saturated zone		saturated zone		saturated zone	
		Shrink-swell	0.50	Cutbanks cave	0.10	Slope	0.04
		Low strength	0.22	Slope	0.04		
		Slope	0.04	Too clayey	0.02		

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LuA: Louin-----	90	Very limited Shrink-swell Low strength Depth to saturated zone	1.00 1.00 0.03	Very limited Depth to saturated zone Cutbanks cave Too clayey	1.00 1.00 0.50	Very limited Too clayey Depth to saturated zone	1.00 0.03
LvA: Lucedale-----	93	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
MaA: Malbis-----	90	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.90 0.10	Not limited	
MaB: Malbis-----	91	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.90 0.10	Not limited	
MaC: Malbis-----	90	Not limited		Somewhat limited Depth to saturated zone Cutbanks cave	0.90 0.10	Not limited	
MbE: Maubila-----	40	Very limited Too steep Shrink-swell Depth to saturated zone	1.00 0.50 0.19	Very limited Depth to saturated zone Too steep Too clayey Cutbanks cave	1.00 1.00 0.57 0.10	Very limited Too steep Large stones Depth to saturated zone	1.00 0.68 0.19
Olla-----	35	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
Rattlesnake Forks---	25	Very limited Too steep	1.00	Very limited Cutbanks cave Too steep	1.00 1.00	Very limited Too steep Droughty	1.00 0.34
MdA: McCrory-----	60	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Sodium content Depth to saturated zone Flooding	1.00 1.00 0.60
Deerford-----	30	Very limited Depth to saturated zone Flooding Low strength	1.00 1.00 1.00	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Very limited Sodium content Depth to saturated zone Flooding	1.00 1.00 0.60
MrA: McLaurin-----	90	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MrB: McLaurin-----	85	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
MrC: McLaurin-----	85	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
OmC: Olla-----	40	Not limited		Somewhat limited Cutbanks cave	0.10	Not limited	
Maubila-----	35	Somewhat limited		Very limited		Somewhat limited	
		Shrink-swell	0.50	Depth to	1.00	Large stones	0.68
		Depth to saturated zone	0.19	saturated zone Too clayey Cutbanks cave	0.57 0.10	Depth to saturated zone	0.19
PaA: Paxville, ponded----	95	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone Cutbanks cave	1.00 1.00 0.10	Very limited Ponding Depth to saturated zone	1.00 1.00
Pd: Pits-----	50	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
Udorthents-----	45	Not rated		Not rated		Not rated	
PeA: Prentiss-----	90	Somewhat limited Depth to saturated zone	0.03	Very limited Depth to saturated zone Cutbanks cave	1.00 0.10	Somewhat limited Depth to cemented pan Depth to saturated zone	0.79 0.03
PwD: Prim-----	40	Somewhat limited Depth to soft bedrock Large stones Shrink-swell	1.00 0.92 0.50	Very limited Depth to soft bedrock Large stones Cutbanks cave	1.00 0.92 0.10	Very limited Droughty Carbonate content Depth to bedrock Large stones	1.00 1.00 1.00 1.00
Suggsville-----	35	Very limited Shrink-swell	1.00	Very limited Too clayey	1.00	Very limited Too clayey	1.00
		Low strength	1.00	Cutbanks cave	1.00		
Watsonia-----	20	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock Too clayey	1.00 1.00
		Low strength Shrink-swell	1.00 1.00	Cutbanks cave	1.00	Droughty	0.99

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwF:							
Prim-----	50	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Droughty	1.00
		Too steep	1.00	Too steep	1.00	Carbonate content	1.00
		Large stones	0.92	Large stones	0.92	Depth to bedrock	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10	Large stones	1.00
						Too steep	1.00
Suggsville-----	20	Very limited		Very limited		Very limited	
		Shrink-swell	1.00	Too clayey	1.00	Too steep	1.00
		Low strength	1.00	Cutbanks cave	1.00	Too clayey	1.00
		Too steep	1.00	Too steep	1.00		
Watsonia-----	20	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Low strength	1.00	Cutbanks cave	1.00	Too steep	1.00
		Shrink-swell	1.00	Too steep	1.00	Too clayey	1.00
		Too steep	1.00			Droughty	0.99
QtA:							
Quitman-----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.43	Depth to saturated zone	1.00	Depth to saturated zone	0.43
				Cutbanks cave	0.10		
RuA:							
Ruston-----	88	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
RuB:							
Ruston-----	87	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
RuC:							
Ruston-----	85	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
SaA:							
Savannah-----	87	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
				Cutbanks cave	0.10		
SaB:							
Savannah-----	85	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
				Cutbanks cave	0.10		
SaC:							
Savannah-----	87	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.03	Depth to saturated zone	1.00	Depth to saturated zone	0.03
				Cutbanks cave	0.10		
ShB:							
Shubuta-----	81	Very limited		Somewhat limited		Not limited	
		Low strength	1.00	Cutbanks cave	0.10		
		Shrink-swell	0.50				

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SmD: Smithdale-----	85	Somewhat limited Slope	0.16	Somewhat limited Slope Cutbanks cave	0.16 0.10	Somewhat limited Slope	0.16
SmE: Smithdale-----	85	Very limited Too steep	1.00	Very limited Too steep Cutbanks cave	1.00 0.10	Very limited Too steep	1.00
SoA: Stough-----	90	Very limited Flooding Depth to saturated zone	1.00 0.94	Very limited Depth to saturated zone Flooding Cutbanks cave	1.00 0.60 0.10	Somewhat limited Depth to saturated zone Flooding Droughty	0.94 0.60 0.01
StC2: Sumter-----	50	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Depth to soft bedrock Too clayey Cutbanks cave	0.71 0.18 0.10	Very limited Carbonate content Depth to bedrock	1.00 0.71
Maytag-----	40	Very limited Low strength Shrink-swell	1.00 1.00	Very limited Cutbanks cave Too clayey	1.00 0.72	Very limited Carbonate content	1.00
SuB: Susquehanna-----	80	Very limited Low strength Shrink-swell	1.00 1.00	Somewhat limited Too clayey Cutbanks cave	0.28 0.10	Not limited	
TbA: Trebloc, ponded----	85	Very limited Depth to saturated zone Flooding Low strength Ponding Shrink-swell	1.00 1.00 1.00 1.00 0.50	Very limited Depth to saturated zone Ponding Flooding Too clayey Cutbanks cave	1.00 1.00 1.00 0.80 0.12 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
UaB: Una-----	60	Very limited Depth to saturated zone Flooding Low strength Shrink-swell Ponding	1.00 1.00 1.00 1.00 1.00	Very limited Depth to saturated zone Ponding Flooding Too clayey Cutbanks cave	1.00 1.00 1.00 0.80 0.28 0.10	Very limited Flooding Depth to saturated zone Ponding	1.00 1.00 1.00
Urbo-----	30	Very limited Flooding Low strength Depth to saturated zone Shrink-swell	1.00 1.00 0.75 0.50	Very limited Depth to saturated zone Flooding Too clayey Cutbanks cave	1.00 1.00 0.80 0.12 0.10	Very limited Flooding Depth to saturated zone	1.00 0.75

# Soil Survey of Wayne County, Mississippi

Table 10b.--Building Site Development (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WaB:							
Wadley-----	90	Not limited		Very limited Cutbanks cave	1.00	Not limited	
WsD:							
Wadley-----	55	Somewhat limited Slope	0.37	Very limited Cutbanks cave Slope	1.00 0.37	Somewhat limited Slope	0.37
Boykin-----	20	Somewhat limited Slope	0.16	Very limited Cutbanks cave Slope	1.00 0.16	Somewhat limited Slope Droughty	0.16 0.06
Smithdale-----	20	Somewhat limited Slope	0.16	Somewhat limited Slope Cutbanks cave	0.16 0.10	Somewhat limited Slope	0.16

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB:				
Alaga-----	Very limited Poor filter	1.00	Very limited Seepage	1.00
AnA:				
Annemaine-----	Very limited Wetness Slow percolation Flooding (rare)	1.00 0.93 0.60	Very limited Wetness Seepage	1.00 0.28
BeB:				
Benndale-----	Slightly limited Slow percolation	0.24	Very limited Seepage Slope	1.00 0.08
BeC:				
Benndale-----	Slightly limited Slow percolation	0.24	Very limited Seepage Slope	1.00 0.91
BeD:				
Benndale-----	Moderately limited Slope Slow percolation	0.37 0.24	Very limited Slope Seepage	1.00 1.00
BkA:				
Bibb-----	Very limited Wetness Flooding Slow percolation	1.00 1.00 0.25	Very limited Flooding Seepage Wetness	1.00 1.00 0.50
Iuka-----	Very limited Wetness Flooding Slow percolation	1.00 1.00 0.25	Very limited Flooding Seepage Wetness	1.00 1.00 0.48
BmB:				
Bigbee-----	Very limited Poor filter Flooding (rare)	1.00 0.60	Very limited Seepage	1.00
BoB2:				
Boswell-----	Very limited Slow percolation	1.00	Slightly limited Slope	0.08
BoC2:				
Boswell-----	Very limited Slow percolation Slope	1.00 0.00	Very limited Slope	1.00
BsE2:				
Boykin-----	Slightly limited Slope	0.16	Very limited Seepage Slope	1.00 1.00

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>BsE2:</b>				
Luverne-----	Very limited Slope Slow percolation	1.00 0.74	Very limited Slope	1.00
Smithdale-----	Very limited Slope Slow percolation	1.00 0.24	Very limited Slope Seepage	1.00 1.00
<b>BtD2:</b>				
Brantley-----	Limited Slow percolation Slope	0.94 0.16	Very limited Slope Seepage	1.00 0.50
Okeelala-----	Slightly limited Slow percolation Slope	0.25 0.16	Very limited Seepage Slope	1.00 1.00
<b>BtE2:</b>				
Okeelala-----	Very limited Slope Slow percolation	1.00 0.25	Very limited Slope Seepage	1.00 1.00
Brantley-----	Very limited Slope Slow percolation	1.00 0.94	Very limited Slope Seepage	1.00 0.50
<b>BtG2:</b>				
Okeelala-----	Very limited Slope Slow percolation	1.00 0.25	Very limited Slope Seepage	1.00 1.00
Brantley-----	Very limited Slope Slow percolation	1.00 0.94	Very limited Slope Seepage	1.00 0.50
<b>CaA:</b>				
Cahaba-----	Slightly limited Slow percolation	0.24	Very limited Seepage	1.00
<b>CaB:</b>				
Cahaba-----	Slightly limited Slow percolation	0.24	Very limited Seepage Slope	1.00 0.08
<b>DgB:</b>				
Dogue-----	Very limited Wetness Slow percolation Flooding (rare)	1.00 0.74 0.60	Very limited Wetness Seepage Slope	1.00 1.00 0.02
<b>FnA:</b>				
Fluvaquents, ponded-----	Very limited Ponded (wetness) Wetness Flooding	1.00 1.00 1.00	Very limited Flooding Wetness Ponded (wetness)	1.00 1.00 1.00

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
FsA:				
Freest-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.93		
FsB:				
Freest-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.93	Slope	0.08
FsC:				
Freest-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.93	Slope	0.91
HaA:				
Harleston-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.24	Seepage	0.53
HeD:				
Heidel-----	Moderately limited		Very limited	
	Slope	0.37	Slope	1.00
	Slow percolation	0.24	Seepage	1.00
HeE:				
Heidel-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow percolation	0.24	Seepage	1.00
IcB:				
Ichusa-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	1.00	Slope	0.08
IrB:				
Irvington-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.94	Slope	0.31
JnB:				
Jena-----	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Slow percolation	0.24	Seepage	1.00
Una-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	1.00		
Mantachie-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	0.25	Seepage	1.00
LaA:				
Latonia-----	Not limited		Very limited	
			Seepage	1.00

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
LfA:				
Leaf-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	1.00		
LpA:				
Leeper-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	1.00		
LrD:				
Lorman-----	Very limited		Very limited	
	Slow percolation	1.00	Slope	1.00
	Slope	0.37		
LrE:				
Lorman-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow percolation	1.00		
LtD:				
Lorman-----	Very limited		Very limited	
	Slow percolation	1.00	Slope	1.00
Petal-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.93	Slope	1.00
	Slope	0.04		
LuA:				
Louin-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	1.00		
LvA:				
Lucedale-----	Slightly limited		Moderately limited	
	Slow percolation	0.24	Seepage	0.53
MaA:				
Malbis-----	Limited		Very limited	
	Wetness	0.89	Wetness	1.00
	Slow percolation	0.73	Seepage	0.53
MaB:				
Malbis-----	Limited		Very limited	
	Wetness	0.89	Wetness	1.00
	Slow percolation	0.73	Seepage	0.53
			Slope	0.08
MaC:				
Malbis-----	Limited		Very limited	
	Wetness	0.89	Wetness	1.00
	Slow percolation	0.73	Slope	0.91
			Seepage	0.53

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
<b>MbE:</b>				
Maubila-----	Very limited		Very limited	
	Wetness	1.00	Slope	1.00
	Slow percolation	1.00	Wetness	1.00
	Slope	1.00	Seepage	1.00
Olla-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow percolation	0.82	Seepage	0.32
<b>Rattlesnake</b>				
Forks-----	Very limited		Very limited	
	Poor filter	1.00	Slope	1.00
	Slope	1.00	Seepage	1.00
<b>MdA:</b>				
McCrory-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	0.94		
Deerford-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	0.94		
<b>MrA:</b>				
McLaurin-----	Slightly limited		Moderately limited	
	Slow percolation	0.24	Seepage	0.53
<b>MrB:</b>				
McLaurin-----	Slightly limited		Moderately limited	
	Slow percolation	0.24	Seepage	0.53
			Slope	0.08
<b>MrC:</b>				
McLaurin-----	Slightly limited		Very limited	
	Slow percolation	0.24	Slope	1.00
			Seepage	0.53
<b>OmC:</b>				
Olla-----	Limited		Limited	
	Slow percolation	0.82	Slope	0.66
			Seepage	0.32
Maubila-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	1.00	Seepage	1.00
			Slope	0.66
<b>PaA:</b>				
Paxville, ponded-----	Very limited		Very limited	
	Ponded (wetness)	1.00	Ponded (wetness)	1.00
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.32	Seepage	0.28

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Pd:				
Pits-----	Not rated		Not rated	
Udorthents----	Very limited Slope	1.00	Very limited Slope	1.00
PeA:				
Prentiss-----	Very limited Wetness Slow percolation	1.00 0.84	Very limited Wetness	1.00
PwD:				
Prim-----	Very limited Depth to bedrock Large stones	1.00 0.94	Very limited Depth to bedrock Large stones Slope	1.00 1.00 0.31
Suggsville----	Very limited Slow percolation Depth to bedrock	1.00 0.90	Limited Slope Depth to bedrock	0.91 0.90
Watsonia-----	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope	1.00 0.66
PwF:				
Prim-----	Very limited Depth to bedrock Slope Large stones	1.00 1.00 0.94	Very limited Slope Depth to bedrock Large stones	1.00 1.00 1.00
Suggsville----	Very limited Slow percolation Slope Depth to bedrock	1.00 1.00 0.90	Very limited Slope Depth to bedrock	1.00 0.90
Watsonia-----	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00
QtA:				
Quitman-----	Very limited Wetness Slow percolation	1.00 0.73	Very limited Wetness Seepage	1.00 0.53
RuA:				
Ruston-----	Slightly limited Slow percolation	0.24	Moderately limited Seepage	0.53
RuB:				
Ruston-----	Slightly limited Slow percolation	0.24	Moderately limited Seepage Slope	0.53 0.08
RuC:				
Ruston-----	Slightly limited Slow percolation	0.24	Limited Slope Seepage	0.91 0.53

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
SaA:				
Savannah-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.94	Seepage	0.53
SaB:				
Savannah-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.94	Seepage	0.53
			Slope	0.08
SaC:				
Savannah-----	Very limited		Very limited	
	Wetness	1.00	Wetness	1.00
	Slow percolation	0.94	Slope	1.00
			Seepage	0.53
ShB:				
Shubuta-----	Limited		Moderately limited	
	Slow percolation	0.73	Slope	0.31
			Seepage	0.14
SmD:				
Smithdale-----	Slightly limited		Very limited	
	Slow percolation	0.24	Seepage	1.00
	Slope	0.16	Slope	1.00
SmE:				
Smithdale-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow percolation	0.24	Seepage	1.00
SoA:				
Stough-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	0.73		
StC2:				
Sumter-----	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slow percolation	0.37	Slope	0.91
			Seepage	0.18
Maytag-----	Limited		Limited	
	Slow percolation	0.94	Slope	0.91
SuB:				
Susquehanna----	Very limited		Slightly limited	
	Slow percolation	1.00	Slope	0.08
TbA:				
Trebloc, ponded	Very limited		Very limited	
	Ponded (wetness)	1.00	Flooding	1.00
	Wetness	1.00	Wetness	1.00
	Flooding	1.00	Ponded (wetness)	1.00

# Soil Survey of Wayne County, Mississippi

Table 11a.--Sanitary Facilities (Part 1)--Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
UaB:				
Una-----	Very limited		Very limited	
	Ponded (wetness)	1.00	Flooding	1.00
	Wetness	1.00	Wetness	1.00
	Flooding	1.00	Ponded (wetness)	1.00
Urbo-----	Very limited		Very limited	
	Wetness	1.00	Flooding	1.00
	Flooding	1.00	Wetness	1.00
	Slow percolation	1.00		
WaB:				
Wadley-----	Slightly limited		Moderately limited	
	Slow percolation	0.24	Seepage	0.53
			Slope	0.08
WsD:				
Wadley-----	Moderately limited		Very limited	
	Slope	0.37	Slope	1.00
	Slow percolation	0.24	Seepage	0.53
Boykin-----	Slightly limited		Very limited	
	Slope	0.16	Seepage	1.00
			Slope	1.00
Smithdale-----	Slightly limited		Very limited	
	Slow percolation	0.24	Seepage	1.00
	Slope	0.16	Slope	1.00

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB:						
Alaga-----	Very limited		Very limited		Very limited	
	Too sandy	1.00	Seepage	1.00	Seepage	1.00
	Seepage	1.00			Too sandy	1.00
	Too acid	0.42			Too acid	0.42
AnA:						
Annemaine-----	Very limited		Limited		Limited	
	Wetness	1.00	Wetness	0.99	Hard to pack	0.70
	Too clayey	0.75	Flooding (rare)	0.60	Wetness	0.60
	Flooding (rare)	0.60			Too clayey	0.53
BeB:						
Benndale-----	Limited		Not limited		Slightly limited	
	Seepage	0.79			Too acid	0.30
	Too acid	0.30				
BeC:						
Benndale-----	Limited		Not limited		Slightly limited	
	Seepage	0.79			Too acid	0.30
	Too acid	0.30				
BeD:						
Benndale-----	Limited		Moderately limited		Moderately limited	
	Seepage	0.79	Slope	0.37	Slope	0.37
	Slope	0.37			Too acid	0.30
	Too acid	0.30				
BkA:						
Bibb-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Too acid	0.54
	Too acid	0.54			Seepage	0.50
Iuka-----	Very limited		Very limited		Moderately limited	
	Flooding	1.00	Flooding	1.00	Too sandy	0.60
	Seepage	1.00	Wetness	0.80	Seepage	0.52
	Wetness	0.99	Seepage	0.76	Wetness	0.50
BmB:						
Bigbee-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Flooding (rare)	0.60	Flooding (rare)	0.60	Too sandy	0.60
	Too sandy	0.60			Too acid	0.42
BoB2:						
Boswell-----	Limited		Not limited		Limited	
	Too clayey	0.78			Hard to pack	0.70
	Too acid	0.30			Too clayey	0.57
					Too acid	0.30
BoC2:						
Boswell-----	Limited		Slightly limited		Limited	
	Too clayey	0.78	Slope	0.00	Hard to pack	0.70
	Too acid	0.30			Too clayey	0.57
	Slope	0.00			Too acid	0.30

Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BsE2:						
Boykin-----	Moderately limited		Very limited		Moderately limited	
	Too acid	0.48	Seepage	1.00	Too acid	0.48
	Slope	0.16	Slope	0.16	Slope	0.16
Luverne-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too clayey	0.48			Too acid	0.30
	Too acid	0.30			Too clayey	0.24
Smithdale-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	0.79	Seepage	0.76	Seepage	0.52
	Too acid	0.30			Too acid	0.30
BtD2:						
Brantley-----	Slightly limited		Slightly limited		Slightly limited	
	Too acid	0.30	Slope	0.16	Too acid	0.30
	Slope	0.16			Slope	0.16
	Too clayey	0.11				
Okeelala-----	Limited		Slightly limited		Slightly limited	
	Seepage	0.79	Slope	0.16	Too acid	0.30
	Too acid	0.30			Slope	0.16
	Slope	0.16				
BtE2:						
Okeelala-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	0.79			Too acid	0.30
	Too acid	0.30				
Brantley-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too acid	0.30			Too acid	0.30
	Too clayey	0.11				
BtG2:						
Okeelala-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	0.79			Too acid	0.30
	Too acid	0.30				
Brantley-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too acid	0.30			Too acid	0.30
	Too clayey	0.11				
CaA:						
Cahaba-----	Very limited		Not limited		Very limited	
	Seepage	1.00			Seepage	1.00
	Too acid	0.42			Too acid	0.42
CaB:						
Cahaba-----	Very limited		Not limited		Very limited	
	Seepage	1.00			Seepage	1.00
	Too acid	0.42			Too acid	0.42

Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DgB:						
Dogue-----	Limited		Limited		Limited	
	Wetness	0.89	Wetness	0.69	Hard to pack	0.70
	Seepage	0.72	Flooding (rare)	0.60	Too acid	0.60
	Too clayey	0.65			Wetness	0.45
FnA:						
Fluvaquents, ponded-----	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Flooding	1.00	Ponded (wetness)	1.00
	Wetness	1.00	Wetness	1.00	Wetness	1.00
	Flooding	1.00	Ponded (wetness)	1.00	Too acid	0.54
FsA:						
Freest-----	Limited		Limited		Limited	
	Wetness	0.99	Wetness	0.80	Hard to pack	0.70
	Too clayey	0.66			Wetness	0.50
					Too clayey	0.39
FsB:						
Freest-----	Limited		Limited		Limited	
	Wetness	0.99	Wetness	0.80	Hard to pack	0.70
	Too clayey	0.66			Wetness	0.50
					Too clayey	0.39
FsC:						
Freest-----	Limited		Limited		Limited	
	Wetness	0.99	Wetness	0.80	Hard to pack	0.70
	Too clayey	0.66			Wetness	0.50
					Too clayey	0.39
HaA:						
Harleston-----	Limited		Limited		Moderately limited	
	Wetness	0.79	Wetness	0.60	Wetness	0.40
	Too acid	0.30			Too acid	0.30
HeD:						
Heidel-----	Limited		Limited		Moderately limited	
	Seepage	0.79	Seepage	0.76	Too sandy	0.60
	Too sandy	0.60	Slope	0.37	Seepage	0.52
	Too acid	0.42			Too acid	0.42
HeE:						
Heidel-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Seepage	0.79	Seepage	0.76	Too sandy	0.60
	Too sandy	0.60			Seepage	0.52
IcB:						
Ichusa-----	Limited		Limited		Limited	
	Wetness	0.89	Wetness	0.69	Hard to pack	0.70
	Too clayey	0.80			Too clayey	0.60
					Wetness	0.45
IrB:						
Irvington-----	Very limited		Limited		Moderately limited	
	Wetness	1.00	Wetness	0.99	Wetness	0.60
	Too acid	0.30			Too acid	0.30

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
JnB:						
Jena-----	Very limited		Very limited		Moderately limited	
	Flooding	1.00	Flooding	1.00	Seepage	0.52
	Seepage	0.79			Too acid	0.30
	Too acid	0.30				
Una-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Hard to pack	0.70
	Too clayey	0.75			Too acid	0.54
Mantachie-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Too acid	0.30
	Too acid	0.30	Seepage	0.50		
LaA:						
Latonia-----	Very limited		Very limited		Very limited	
	Too sandy	1.00	Seepage	1.00	Seepage	1.00
	Seepage	1.00			Too sandy	1.00
	Too acid	0.30			Too acid	0.30
LfA:						
Leaf-----	Very limited		Very limited		Limited	
	Wetness	1.00	Flooding	1.00	Wetness	0.99
	Flooding	1.00	Wetness	1.00	Hard to pack	0.70
	Too clayey	0.75			Too acid	0.54
LpA:						
Leeper-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Hard to pack	0.70
	Too clayey	0.65			Too clayey	0.38
LrD:						
Lorman-----	Limited		Moderately limited		Limited	
	Too clayey	0.70	Slope	0.37	Hard to pack	0.70
	Slope	0.37			Too clayey	0.45
					Slope	0.37
LrE:						
Lorman-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too clayey	0.70			Hard to pack	0.70
					Too clayey	0.45
LtD:						
Lorman-----	Limited		Not limited		Limited	
	Too clayey	0.70			Hard to pack	0.70
					Too clayey	0.45
Petal-----	Very limited		Limited		Limited	
	Wetness	1.00	Wetness	0.99	Hard to pack	0.70
	Too clayey	0.64	Slope	0.04	Wetness	0.60
	Too acid	0.30			Too clayey	0.36
LuA:						
Louin-----	Limited		Limited		Limited	
	Wetness	0.89	Wetness	0.69	Hard to pack	0.70
	Too clayey	0.80			Too clayey	0.60
					Wetness	0.45

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LvA:						
Lucedale-----	Slightly limited		Not limited		Slightly limited	
	Too acid	0.30			Too acid	0.30
MaA:						
Malbis-----	Moderately limited		Slightly limited		Slightly limited	
	Wetness	0.52	Wetness	0.22	Too acid	0.30
	Too acid	0.30			Wetness	0.14
	Too clayey	0.02				
MaB:						
Malbis-----	Moderately limited		Slightly limited		Slightly limited	
	Wetness	0.52	Wetness	0.22	Too acid	0.30
	Too acid	0.30			Wetness	0.14
	Too clayey	0.02				
MaC:						
Malbis-----	Moderately limited		Slightly limited		Slightly limited	
	Wetness	0.52	Wetness	0.22	Too acid	0.30
	Too acid	0.30			Wetness	0.14
	Too clayey	0.02				
MbE:						
Maubila-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Wetness	0.99	Wetness	0.80	Too clayey	0.63
	Too clayey	0.81	Seepage	0.75	Wetness	0.50
Olla-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Too acid	0.42			Hard to pack	0.70
					Too acid	0.42
Rattlesnake						
Forks-----	Very limited		Very limited		Very limited	
	Seepage	1.00	Seepage	1.00	Seepage	1.00
	Slope	1.00	Slope	1.00	Slope	1.00
	Too acid	0.60			Too acid	0.60
MdA:						
McCrory-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Excess sodium	1.00
	Excess sodium	1.00				
Deerford-----	Very limited		Very limited		Very limited	
	Wetness	1.00	Flooding	1.00	Wetness	1.00
	Flooding	1.00	Wetness	1.00	Excess sodium	0.16
	Excess sodium	0.16				
MrA:						
McLaurin-----	Slightly limited		Not limited		Slightly limited	
	Too acid	0.30			Too acid	0.30
MrB:						
McLaurin-----	Slightly limited		Not limited		Slightly limited	
	Too acid	0.30			Too acid	0.30

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MrC:						
McLaurin-----	Slightly limited		Not limited		Slightly limited	
	Too acid	0.30			Too acid	0.30
OmC:						
Olla-----	Moderately limited		Not limited		Limited	
	Too acid	0.42			Hard to pack	0.70
					Too acid	0.42
Maubila-----	Limited		Limited		Limited	
	Wetness	0.99	Wetness	0.80	Too clayey	0.63
	Too clayey	0.81	Seepage	0.75	Wetness	0.50
	Too acid	0.30			Too acid	0.30
PaA:						
Paxville, ponded-----	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Wetness	1.00	Ponded (wetness)	1.00
	Wetness	1.00	Ponded (wetness)	1.00	Wetness	1.00
	Too acid	0.54			Too acid	0.54
Pd:						
Pits-----	Not rated		Not rated		Not rated	
Udorthents----	Not rated		Very limited		Not rated	
			Slope	1.00		
PeA:						
Prentiss-----	Limited		Limited		Moderately limited	
	Wetness	0.89	Wetness	0.69	Wetness	0.45
	Too acid	0.42			Too acid	0.42
PwD:						
Prim-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
					Large stones	0.92
Suggsville-----	Very limited		Limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	0.81	Too clayey	1.00
	Too clayey	1.00			Depth to bedrock	0.81
	Too acid	0.30			Hard to pack	0.70
Watsonia-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	1.00			Hard to pack	0.70
PwF:						
Prim-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Slope	1.00	Slope	1.00	Slope	1.00
					Large stones	0.92
Suggsville-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Slope	1.00	Too clayey	1.00
	Too clayey	1.00	Depth to bedrock	0.81	Slope	1.00
	Slope	1.00			Depth to bedrock	0.81
Watsonia-----	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	1.00	Slope	1.00	Slope	1.00
	Slope	1.00			Hard to pack	0.70

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
QtA: Quitman-----	Very limited Wetness Too acid	1.00 0.30	Limited Wetness	0.89	Moderately limited Wetness Too acid	0.55 0.30
RuA: Ruston-----	Slightly limited Too acid	0.12	Not limited		Slightly limited Too acid	0.12
RuB: Ruston-----	Slightly limited Too acid	0.12	Not limited		Slightly limited Too acid	0.12
RuC: Ruston-----	Slightly limited Too acid	0.12	Not limited		Slightly limited Too acid	0.12
SaA: Savannah-----	Limited Wetness Too acid	0.89 0.54	Limited Wetness	0.69	Moderately limited Too acid Wetness	0.54 0.45
SaB: Savannah-----	Limited Wetness Too acid	0.89 0.54	Limited Wetness	0.69	Moderately limited Too acid Wetness	0.54 0.45
SaC: Savannah-----	Limited Wetness Too acid	0.89 0.54	Limited Wetness	0.69	Moderately limited Too acid Wetness	0.54 0.45
ShB: Shubuta-----	Moderately limited Too clayey Too acid	0.42 0.30	Not limited		Limited Hard to pack Too acid Too clayey	0.70 0.30 0.21
SmD: Smithdale-----	Limited Seepage Too acid Slope	0.79 0.30 0.16	Limited Seepage Slope	0.76 0.16	Moderately limited Seepage Too acid Slope	0.52 0.30 0.16
SmE: Smithdale-----	Very limited Slope Seepage Too acid	1.00 0.79 0.30	Very limited Slope Seepage	1.00 0.76	Very limited Slope Seepage Too acid	1.00 0.52 0.30
SoA: Stough-----	Very limited Wetness Flooding Too acid	1.00 1.00 0.30	Very limited Flooding Wetness	1.00 1.00	Limited Wetness Too acid	0.81 0.30
StC2: Sumter-----	Very limited Depth to bedrock Too clayey	1.00 0.72	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Hard to pack Too clayey	1.00 0.70 0.48

# Soil Survey of Wayne County, Mississippi

Table 11b.--Sanitary Facilities (Part 2)--Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
StC2:						
Maytag-----	Limited		Not limited		Limited	
	Too clayey	0.85			Hard to pack	0.70
					Too clayey	0.70
SuB:						
Susquehanna----	Limited		Not limited		Limited	
	Too clayey	0.75			Hard to pack	0.70
	Too acid	0.30			Too clayey	0.53
					Too acid	0.30
TbA:						
Trebloc, ponded	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Flooding	1.00	Ponded (wetness)	1.00
	Wetness	1.00	Wetness	1.00	Wetness	1.00
	Flooding	1.00	Ponded (wetness)	1.00	Too clayey	0.45
UaB:						
Una-----	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Flooding	1.00	Ponded (wetness)	1.00
	Wetness	1.00	Wetness	1.00	Wetness	1.00
	Flooding	1.00	Ponded (wetness)	1.00	Hard to pack	0.70
Urbo-----	Very limited		Very limited		Limited	
	Wetness	1.00	Flooding	1.00	Hard to pack	0.70
	Flooding	1.00	Wetness	0.99	Wetness	0.60
	Too clayey	0.70			Too clayey	0.45
WaB:						
Wadley-----	Very limited		Not limited		Very limited	
	Too sandy	1.00			Too sandy	1.00
	Too acid	0.12			Too acid	0.12
WsD:						
Wadley-----	Very limited		Moderately limited		Very limited	
	Too sandy	1.00	Slope	0.37	Too sandy	1.00
	Slope	0.37			Slope	0.37
	Too acid	0.12			Too acid	0.12
Boykin-----	Moderately limited		Very limited		Moderately limited	
	Too acid	0.48	Seepage	1.00	Too acid	0.48
	Slope	0.16	Slope	0.16	Slope	0.16
Smithdale-----	Limited		Limited		Moderately limited	
	Seepage	0.79	Seepage	0.76	Seepage	0.52
	Too acid	0.30	Slope	0.16	Too acid	0.30
	Slope	0.16			Slope	0.16

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
AgB:					
Alaga-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.13
		Thickest layer	0.00	Thickest layer	0.13
AnA:					
Annemaine-----	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
BeB:					
Benndale-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.02
BeC:					
Benndale-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.02
BeD:					
Benndale-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.01
		Thickest layer	0.00	Bottom layer	0.02
BkA:					
Bibb-----	65	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.12
Iuka-----	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.05
		Thickest layer	0.00	Bottom layer	0.28
BmB:					
Bigbee-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.10
BoB2:					
Boswell-----	88	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
BoC2:					
Boswell-----	82	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
<b>BsE2:</b>					
Boykin-----	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
Luverne-----	25	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Smithdale-----	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
<b>BtD2:</b>					
Brantley-----	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
Okeelala-----	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
<b>BtE2:</b>					
Okeelala-----	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Brantley-----	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
<b>BtG2:</b>					
Okeelala-----	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
Brantley-----	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
<b>CaA:</b>					
Cahaba-----	83	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.11
<b>CaB:</b>					
Cahaba-----	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.11
<b>DgB:</b>					
Dogue-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
<b>FnA:</b>					
Fluvaquents, ponded-	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
<b>FsA:</b>					
Freest-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>FsB:</b>					
Freest-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>FsC:</b>					
Freest-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>HaA:</b>					
Harleston-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.02
<b>HeD:</b>					
Heidel-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.05
<b>HeE:</b>					
Heidel-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.05
<b>IcB:</b>					
Ichusa-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>IrB:</b>					
Irvington-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>JnB:</b>					
Jena-----	40	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.03
		Thickest layer	0.00	Bottom layer	0.10
<b>Una-----</b>	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
<b>Mantachie-----</b>	17	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.03
<b>LaA:</b>					
Latonia-----	90	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.02
		Thickest layer	0.00	Bottom layer	0.13
<b>LfA:</b>					
Leaf-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
LpA:					
Leeper-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LrD:					
Lorman-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LrE:					
Lorman-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LtD:					
Lorman-----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Petal-----	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LuA:					
Louin-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LvA:					
Lucedale-----	93	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.01
MaA:					
Malbis-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MaB:					
Malbis-----	91	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MaC:					
Malbis-----	90	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MbE:					
Maubila-----	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Olla-----	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.01
Rattlesnake Forks---	25	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.09

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
MdA:					
McCrory-----	60	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.01
Deerford-----	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MrA:					
McLaurin-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.03
MrB:					
McLaurin-----	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.03
MrC:					
McLaurin-----	85	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.02
		Thickest layer	0.00	Thickest layer	0.03
OmC:					
Olla-----	40	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.01
Maubila-----	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
PaA:					
Paxville, ponded----	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
Pd:					
Pits-----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Udorthents-----	45	Not rated		Not rated	
PeA:					
Prentiss-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.01
PwD:					
Prim-----	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Suggsville-----	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Watsonia-----	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
PwF:					
Prim-----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Suggsville-----	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Watsonia-----	20	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
QtA:					
Quitman-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RuA:					
Ruston-----	88	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RuB:					
Ruston-----	87	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RuC:					
Ruston-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaA:					
Savannah-----	87	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaB:					
Savannah-----	85	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaC:					
Savannah-----	87	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ShB:					
Shubuta-----	81	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SmD:					
Smithdale-----	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02
SmE:					
Smithdale-----	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02

# Soil Survey of Wayne County, Mississippi

Table 12a.--Construction Materials (Part 1)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
SoA:					
Stough-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.02
StC2:					
Sumter-----	50	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Maytag-----	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SuB:					
Susquehanna-----	80	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TbA:					
Trebloc, ponded----	85	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
UaB:					
Una-----	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Urbo-----	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
WaB:					
Wadley-----	90	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.32
WsD:					
Wadley-----	55	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.12
		Thickest layer	0.00	Thickest layer	0.32
Boykin-----	20	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.03
Smithdale-----	20	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.02

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB: Alaga-----	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.76
		Low content of organic matter	0.12				
		Too acid	0.50				
		Droughty	0.98				
AnA: Annemaine-----	85	Poor		Fair		Poor	
		Too clayey	0.00	Depth to wetness	0.14	Too clayey	0.00
		Low content of organic matter	0.12	Shrink-swell	0.99	Depth to wetness	0.14
		Too acid	0.32			Too acid	0.88
BeB: Benndale-----	90	Fair		Good		Fair	
		Low content of organic matter	0.18			Too acid	0.88
		Too acid	0.32				
BeC: Benndale-----	90	Fair		Good		Fair	
		Low content of organic matter	0.18			Too acid	0.88
		Too acid	0.32				
BeD: Benndale-----	90	Fair		Good		Fair	
		Low content of organic matter	0.18			Slope	0.63
		Too acid	0.32			Too acid	0.88
BkA: Bibb-----	65	Fair		Poor		Poor	
		Too acid	0.12	Depth to wetness	0.00	Depth to wetness	0.00
		Low content of organic matter	0.88			Rock fragments	0.12
		Water erosion	0.99			Too acid	0.59
Iuka-----	25	Fair		Fair		Fair	
		Too acid	0.20	Depth to wetness	0.53	Depth to wetness	0.53
		Low content of organic matter	0.88			Too acid	0.88
BmB: Bigbee-----	90	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.01
		Too sandy	0.01			Too acid	0.76
		Low content of organic matter	0.12				
		Too acid	0.50				

Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BoB2: Boswell-----	88	Poor Too clayey Low content of organic matter Too acid	 0.00 0.05 0.50	Poor Low strength Shrink-swell	 0.00 0.12	Poor Too clayey Too acid	 0.00 0.88
BoC2: Boswell-----	82	Poor Too clayey Low content of organic matter Too acid	 0.00 0.05 0.50	Poor Low strength Shrink-swell	 0.00 0.12	Poor Too clayey Too acid	 0.00 0.88
BsE2: Boykin-----	40	Poor Wind erosion Too sandy Low content of organic matter Too acid	 0.00 0.12 0.12 0.50	Good		Fair Too sandy Slope Too acid	 0.12 0.84 0.99
Luverne-----	25	Poor Low content of organic matter Too clayey Too acid	 0.00 0.08 0.32	Poor Slope Low strength	 0.00 0.78	Poor Slope Too clayey Too acid	 0.00 0.04 0.88
Smithdale-----	25	Fair Low content of organic matter Too acid	 0.18 0.50	Poor Slope	 0.00	Poor Slope Too acid	 0.00 0.88
BtD2: Brantley-----	70	Fair Too acid Low content of organic matter	 0.32 0.88	Poor Low strength Shrink-swell	 0.00 0.91	Fair Slope Too acid	 0.84 0.88
Okeelala-----	20	Fair Low content of organic matter Too acid	 0.12 0.32	Good		Fair Slope Too acid	 0.84 0.88
BtE2: Okeelala-----	60	Poor Wind erosion Low content of organic matter Too acid	 0.00 0.12 0.32	Fair Slope	 0.50	Poor Slope Too acid	 0.00 0.88
Brantley-----	25	Fair Too acid Low content of organic matter	 0.32 0.88	Poor Low strength Slope Shrink-swell	 0.00 0.00 0.91	Poor Slope Too acid	 0.00 0.88

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BtG2: Okeelala-----	60	Poor Wind erosion Low content of organic matter Too acid	0.00 0.12 0.32	Fair Slope	0.50	Poor Slope Too acid	0.00 0.88
Brantley-----	25	Fair Too acid Low content of organic matter	0.32 0.88	Poor Low strength Slope Shrink-swell	0.00 0.00 0.91	Poor Slope Too acid	0.00 0.88
CaA: Cahaba-----	83	Fair Low content of organic matter Too acid	0.12 0.20	Good		Fair Too acid	0.76
CaB: Cahaba-----	85	Fair Low content of organic matter Too acid	0.12 0.20	Good		Fair Too acid	0.76
DgB: Dogue-----	90	Poor Too clayey Too acid Low content of organic matter	0.00 0.08 0.12	Poor Low strength Depth to wetness Shrink-swell	0.00 0.76 0.95	Poor Too clayey Too acid Depth to wetness Rock fragments	0.00 0.50 0.76 0.97
FnA: Fluvaquents, ponded-	100	Fair Too acid Low content of organic matter Water erosion	0.50 0.88 0.99	Poor Depth to wetness Low strength	0.00 0.00	Poor Depth to wetness Too acid	0.00 0.59
FsA: Freest-----	85	Fair Low content of organic matter Too acid	0.02 0.50	Poor Low strength Shrink-swell Depth to wetness	0.00 0.48 0.53	Fair Depth to wetness Too acid	0.53 0.98
FsB: Freest-----	85	Fair Low content of organic matter Too acid	0.02 0.50	Poor Low strength Shrink-swell Depth to wetness	0.00 0.48 0.53	Fair Depth to wetness Too acid	0.53 0.98
FsC: Freest-----	85	Fair Low content of organic matter Too acid	0.02 0.50	Poor Low strength Shrink-swell Depth to wetness	0.00 0.48 0.53	Fair Depth to wetness Too acid	0.53 0.98

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HaA: Harleston-----	90	Fair Too acid Low content of organic matter Too sandy	 0.12 0.12 0.99	Fair Depth to wetness	 0.89	Fair Too acid Depth to wetness Rock fragments Too sandy	 0.88 0.89 0.95 0.99
HeD: Heidel-----	90	Poor Wind erosion Low content of organic matter Too acid	 0.00 0.01 0.50	Good		Fair Slope Too acid	 0.63 0.76
HeE: Heidel-----	90	Poor Wind erosion Low content of organic matter Too acid	 0.00 0.01 0.50	Fair Slope	 0.08	Poor Slope Too acid	 0.00 0.76
IcB: Ichusa-----	90	Poor Too clayey Low content of organic matter Too acid	 0.00 0.02 0.50	Poor Low strength Shrink-swell Depth to wetness	 0.00 0.00 0.76	Poor Too clayey Depth to wetness	 0.00 0.76
IrB: Irvington-----	85	Fair Low content of organic matter Too acid	 0.08 0.32	Fair Depth to wetness	 0.14	Fair Depth to wetness Rock fragments Too acid	 0.14 0.41 0.88
JnB: Jena-----	40	Fair Too acid Low content of organic matter Water erosion	 0.32 0.88 0.99	Good		Fair Too acid	 0.88
Una-----	20	Poor Too clayey Low content of organic matter Too acid	 0.00 0.12 0.50	Poor Depth to wetness Low strength Shrink-swell	 0.00 0.00 0.12	Poor Depth to wetness Too clayey Too acid	 0.00 0.00 0.59
Mantachie-----	17	Fair Low content of organic matter Too acid Water erosion	 0.12 0.50 0.99	Poor Depth to wetness	 0.00	Poor Depth to wetness Too acid	 0.00 0.88
LaA: Latonia-----	90	Poor Wind erosion Low content of organic matter Too acid Too sandy	 0.00 0.02 0.50 0.99	Good		Fair Too acid Rock fragments Too sandy	 0.88 0.92 0.99

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LfA: Leaf-----	85	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.12	Depth to wetness	0.00	Depth to wetness	0.00
		Low content of organic matter	0.24	Shrink-swell	0.12	Too acid	0.59
LpA: Leeper-----	90	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to wetness	0.00	Depth to wetness	0.00
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
				Shrink-swell	0.12		
LrD: Lorman-----	85	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Low content of organic matter	0.08			Slope	0.63
		Too acid	0.68				
LrE: Lorman-----	90	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Slope	0.00
		Low content of organic matter	0.08	Slope	0.00	Too clayey	0.00
		Too acid	0.68				
LtD: Lorman-----	50	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Low content of organic matter	0.08				
		Too acid	0.68				
Petal-----	35	Fair		Poor		Fair	
		Low content of organic matter	0.02	Low strength	0.00	Depth to wetness	0.14
		Too acid	0.50	Depth to wetness	0.14	Too acid	0.88
				Shrink-swell	0.35	Slope	0.96
LuA: Louin-----	90	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Low content of organic matter	0.02	Low strength	0.00	Depth to wetness	0.76
		Too acid	0.50	Depth to wetness	0.76		
LvA: Lucedale-----	93	Fair		Good		Fair	
		Low content of organic matter	0.32			Too acid	0.88
		Too acid	0.50				
MaA: Malbis-----	90	Fair		Fair		Fair	
		Low content of organic matter	0.08	Low strength	0.78	Too acid	0.88
		Too acid	0.32				

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MaB: Malbis-----	91	Fair Low content of organic matter Too acid	0.08 0.32	Fair Low strength	0.78	Fair Too acid	0.88
MaC: Malbis-----	90	Fair Low content of organic matter Too acid	0.08 0.32	Fair Low strength	0.78	Fair Too acid	0.88
MbE: Maubila-----	40	Fair Low content of organic matter Too acid	0.12 0.20	Poor Low strength Slope Depth to wetness Shrink-swell	0.00 0.50 0.53 0.87	Poor Slope Depth to wetness Rock fragments Too acid	0.00 0.53 0.81 0.92
Olla-----	35	Fair Low content of organic matter Too acid	0.08 0.50	Poor Low strength Slope	0.00 0.50	Poor Slope Too acid	0.00 0.68
Rattlesnake Forks---	25	Fair Too acid Low content of organic matter Too sandy	0.08 0.32 0.38	Good		Poor Slope Too sandy Too acid	0.00 0.38 0.50
MdA: McCrory-----	60	Poor Too alkaline Low content of organic matter Sodium content Too acid	0.00 0.12 0.22 0.26	Poor Depth to wetness	0.00	Poor Depth to wetness Sodium content	0.00 0.00
Deerford-----	30	Poor Too acid Sodium content Low content of organic matter	0.00 0.22 0.50	Poor Depth to wetness Low strength	0.00 0.00	Poor Depth to wetness Sodium content	0.00 0.22
MrA: McLaurin-----	90	Fair Organic matter content low Too acid	0.01 0.50	Good		Fair Too acid	0.88
MrB: McLaurin-----	85	Fair Low content of organic matter Too acid	0.01 0.50	Good		Fair Too acid	0.88
MrC: McLaurin-----	85	Fair Low content of organic matter Too acid	0.01 0.50	Good		Fair Too acid	0.88

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OmC:							
Olla-----	40	Fair		Poor		Fair	
		Low content of organic matter	0.08	Low strength	0.00	Too acid	0.68
		Too acid	0.50				
Maubila-----	35	Fair		Poor		Fair	
		Low content of organic matter	0.12	Low strength	0.00	Depth to wetness	0.53
		Too acid	0.20	Depth to wetness	0.53	Rock fragments	0.81
				Shrink-swell	0.87	Too acid	0.92
PaA:							
Paxville, ponded----	95	Fair		Poor		Poor	
		Low content of organic matter	0.01	Depth to wetness	0.00	Depth to wetness	0.00
		Too acid	0.12			Too acid	0.59
Pd:							
Pits-----	50	Poor		Poor		Not rated	
		Low content of organic matter	0.00	Slope	0.00		
		Too acid	0.50				
Udorthents-----	45	Not rated		Not rated		Not rated	
PeA:							
Prentiss-----	90	Fair		Fair		Fair	
		Low content of organic matter	0.12	Depth to wetness	0.76	Depth to wetness	0.76
		Too acid	0.20			Too acid	0.76
		Water erosion	0.99				
PwD:							
Prim-----	40	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Carbonate content	0.00	Shrink-swell	0.87	Depth to bedrock	0.00
		Depth to bedrock	0.00			Carbonate content	0.00
		Stone content	0.08			Too clayey	0.47
		Too clayey	0.48				
		Cobble content	0.84				
Suggsville-----	35	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter content low	0.08	Low strength	0.00	Too acid	0.88
		Too acid	0.50	Depth to bedrock	0.04		
Watsonia-----	20	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Droughty	0.00	Low strength	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Shrink-swell	0.12		
		Carbonate content	0.32				
		Too acid	0.68				
		Water erosion	0.99				

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwF:							
Prim-----	50	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Rock fragments	0.00
		Carbonate content	0.00	Slope	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Shrink-swell	0.87	Carbonate content	0.00
		Stone content	0.08			Slope	0.00
		Too clayey	0.48			Too clayey	0.47
		Cobble content	0.84				
Suggsville-----	20	Poor		Poor		Poor	
		Too clayey	0.00	Shrink-swell	0.00	Too clayey	0.00
		Organic matter	0.08	Low strength	0.00	Slope	0.00
		content low		Slope	0.00	Too acid	0.88
		Too acid	0.50	Depth to bedrock	0.04		
Watsonia-----	20	Poor		Poor		Poor	
		Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
		Droughty	0.00	Low strength	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00	Slope	0.00	Slope	0.00
		Carbonate content	0.32	Shrink-swell	0.12		
		Too acid	0.68				
		Water erosion	0.99				
QtA:							
Quitman-----	85	Fair		Fair		Fair	
		Low content of	0.01	Depth to wetness	0.32	Depth to wetness	0.32
		organic matter				Too acid	0.88
		Too acid	0.50				
RuA:							
Ruston-----	88	Fair		Good		Fair	
		Low content of	0.12			Too acid	0.98
		organic matter					
		Too acid	0.54				
RuB:							
Ruston-----	87	Fair		Good		Fair	
		Low content of	0.12			Too acid	0.98
		organic matter					
		Too acid	0.54				
RuC:							
Ruston-----	85	Fair		Good		Fair	
		Low content of	0.12			Too acid	0.98
		organic matter					
		Too acid	0.54				
SaA:							
Savannah-----	87	Fair		Fair		Fair	
		Low content of	0.02	Depth to wetness	0.76	Too acid	0.59
		organic matter				Depth to wetness	0.76
		Too acid	0.50				
SaB:							
Savannah-----	85	Fair		Fair		Fair	
		Low content of	0.02	Depth to wetness	0.76	Too acid	0.59
		organic matter				Depth to wetness	0.76
		Too acid	0.50				

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaC: Savannah-----	87	Fair Low content of organic matter Too acid	0.02 0.50	Fair Depth to wetness	0.76	Fair Too acid Depth to wetness	0.59 0.76
ShB: Shubuta-----	81	Fair Too clayey Too acid Low content of organic matter	0.18 0.32 0.68	Poor Low strength Shrink-swell	0.00 0.87	Fair Too clayey Too acid	0.12 0.88
SmD: Smithdale-----	85	Fair Low content of organic matter Too acid	0.18 0.50	Good		Fair Slope Too acid	0.84 0.88
SmE: Smithdale-----	85	Fair Low content of organic matter Too acid	0.18 0.50	Poor Slope	0.00	Poor Slope Too acid	0.00 0.88
SoA: Stough-----	90	Fair Low content of organic matter Too acid Water erosion Too sandy	0.02 0.50 0.99 0.99	Fair Depth to wetness	0.04	Fair Depth to wetness Too acid Too sandy	0.04 0.88 0.99
StC2: Sumter-----	50	Poor Carbonate content Low content of organic matter Too clayey Droughty Depth to bedrock Water erosion	0.00 0.00 0.00 0.29 0.29 0.99	Poor Low strength Depth to bedrock Shrink-swell	0.00 0.00 0.12	Poor Carbonate content Too clayey Depth to bedrock Rock fragments	0.00 0.00 0.29 0.98
Maytag-----	40	Poor Carbonate content Low content of organic matter Too clayey	0.00 0.00 0.00	Poor Low strength Shrink-swell	0.00 0.12	Poor Carbonate content Too clayey	0.00 0.00
SuB: Susquehanna-----	80	Poor Too clayey Too acid Low content of organic matter	0.00 0.50 0.68	Poor Low strength Shrink-swell	0.00 0.12	Poor Too clayey Too acid	0.00 0.88

# Soil Survey of Wayne County, Mississippi

Table 12b.--Construction Materials (Part 2)--Continued

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TbA: Trebloc, ponded-----	85	Fair		Poor		Poor	
		Low content of organic matter	0.05	Depth to wetness	0.00	Depth to wetness	0.00
		Too acid	0.32	Low strength	0.00	Too clayey	0.53
		Too clayey	0.88	Shrink-swell	0.92	Too acid	0.88
		Water erosion	0.90				
UaB: Una-----	60	Poor		Poor		Poor	
		Too clayey	0.00	Depth to wetness	0.00	Depth to wetness	0.00
		Low content of organic matter	0.12	Low strength	0.00	Too clayey	0.00
		Too acid	0.50	Shrink-swell	0.12	Too acid	0.59
Urbo-----	30	Poor		Poor		Poor	
		Too clayey	0.00	Low strength	0.00	Too clayey	0.00
		Too acid	0.32	Depth to wetness	0.14	Depth to wetness	0.14
		Low content of organic matter	0.50	Shrink-swell	0.87	Too acid	0.88
WaB: Wadley-----	90	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Too acid	0.98
		Low content of organic matter	0.12				
		Too acid	0.54				
WsD: Wadley-----	55	Poor		Good		Poor	
		Wind erosion	0.00			Too sandy	0.00
		Too sandy	0.00			Slope	0.63
		Low content of organic matter	0.12			Too acid	0.98
		Too acid	0.54				
Boykin-----	20	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.12
		Too sandy	0.12			Slope	0.84
		Low content of organic matter	0.12			Too acid	0.99
		Too acid	0.50				
Smithdale-----	20	Fair		Good		Fair	
		Organic matter content low	0.18			Slope	0.84
		Too acid	0.50			Too acid	0.88

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB:				
Alaga-----	Very limited Seepage	1.00	Limited Cutbanks cave	0.90
AnA:				
Annemaine-----	Slightly limited Seepage	0.28	Limited Cutbanks cave Slow percolation	0.90 0.40
BeB:				
Benndale-----	Very limited Seepage	1.00	Slightly limited Slope	0.10
BeC:				
Benndale-----	Very limited Seepage Slope	1.00 0.30	Limited Slope	0.98
BeD:				
Benndale-----	Very limited Seepage Slope	1.00 0.89	Very limited Slope	1.00
BkA:				
Bibb-----	Very limited Seepage	1.00	Limited Cutbanks cave Flooding	0.90 0.90
Iuka-----	Very limited Seepage	1.00	Limited Cutbanks cave Flooding	0.90 0.90
BmB:				
Bigbee-----	Very limited Seepage	1.00	Limited Cutbanks cave	0.90
BoB2:				
Boswell-----	Not limited		Very limited Slow percolation Slope	1.00 0.10
BoC2:				
Boswell-----	Moderately limited Slope	0.60	Very limited Slow percolation Slope	1.00 1.00
BsE2:				
Boykin-----	Very limited Seepage Slope	1.00 0.80	Very limited Slope Cutbanks cave	1.00 0.90
Luverne-----	Very limited Slope	1.00	Very limited Slope Slow percolation	1.00 0.17

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
BsE2:				
Smithdale-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00		
BtD2:				
Brantley-----	Limited		Very limited	
	Slope	0.80	Slope	1.00
	Seepage	0.50	Slow percolation	0.40
Okeelala-----	Very limited		Very limited	
	Seepage	1.00	Slope	1.00
	Slope	0.80	Cutbanks cave	0.90
BtE2:				
Okeelala-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00	Cutbanks cave	0.90
Brantley-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	0.50	Slow percolation	0.40
BtG2:				
Okeelala-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00	Cutbanks cave	0.90
Brantley-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	0.50	Slow percolation	0.40
CaA:				
Cahaba-----	Very limited		Limited	
	Seepage	1.00	Cutbanks cave	0.90
CaB:				
Cahaba-----	Very limited		Limited	
	Seepage	1.00	Cutbanks cave	0.90
			Slope	0.10
DgB:				
Dogue-----	Very limited		Slightly limited	
	Seepage	1.00	Slow percolation	0.17
			Slope	0.02
FnA:				
Fluvaquents, ponded-----	Not limited		Very limited	
			Ponded (wetness)	1.00
			Flooding	0.90
			Slow percolation	0.40
FsA:				
Freest-----	Not limited		Moderately limited	
			Slow percolation	0.40
FsB:				
Freest-----	Not limited		Moderately limited	
			Slow percolation	0.40
			Slope	0.10

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
FsC:				
Freest-----	Moderately limited Slope	0.30	Limited Slope Slow percolation	0.98 0.40
HaA:				
Harleston-----	Moderately limited Seepage	0.53	Not limited	
HeD:				
Heidel-----	Very limited Seepage Slope	1.00 0.89	Very limited Slope Cutbanks cave	1.00 0.90
HeE:				
Heidel-----	Very limited Slope Seepage	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.90
IcB:				
Ichusa-----	Not limited		Very limited Slow percolation Slope	1.00 0.10
IrB:				
Irvington-----	Slightly limited Slope	0.10	Moderately limited Slope Slow percolation	0.40 0.17
JnB:				
Jena-----	Very limited Seepage	1.00	Limited Cutbanks cave Flooding	0.90 0.90
Una-----	Not limited		Very limited Slow percolation Flooding	1.00 0.90
Mantachie-----	Very limited Seepage	1.00	Limited Cutbanks cave Flooding	0.90 0.90
LaA:				
Latonia-----	Very limited Seepage	1.00	Limited Cutbanks cave	0.90
LfA:				
Leaf-----	Not limited		Very limited Slow percolation Flooding	1.00 0.90
LpA:				
Leeper-----	Not limited		Very limited Slow percolation Flooding	1.00 0.90
LrD:				
Lorman-----	Limited Slope	0.89	Very limited Slope Slow percolation	1.00 1.00

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
LrE:				
Lorman-----	Very limited Slope	1.00	Very limited Slope Slow percolation	1.00 1.00
LtD:				
Lorman-----	Moderately limited Slope	0.45	Very limited Slow percolation Slope	1.00 1.00
Petal-----	Limited Slope	0.70	Very limited Slope Slow percolation	1.00 0.40
LuA:				
Louin-----	Not limited		Very limited Slow percolation	1.00
LvA:				
Lucedale-----	Moderately limited Seepage	0.53	Not limited	
MaA:				
Malbis-----	Moderately limited Seepage	0.53	Not limited	
MaB:				
Malbis-----	Moderately limited Seepage	0.53	Slightly limited Slope	0.10
MaC:				
Malbis-----	Moderately limited Seepage Slope	0.53 0.30	Limited Slope	0.98
MbE:				
Maubila-----	Very limited Seepage Slope	1.00 1.00	Very limited Slope Cutbanks cave Slow percolation	1.00 0.90 0.40
Olla-----	Very limited Slope Seepage	1.00 0.32	Very limited Slope Cutbanks cave Slow percolation	1.00 0.90 0.26
Rattlesnake Forks-----	Very limited Seepage Slope	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.90
MdA:				
McCrary-----	Not limited		Very limited Excess sodium Flooding Slow percolation	1.00 0.60 0.40
Deerford-----	Not limited		Moderately limited Flooding Slow percolation Excess sodium	0.60 0.40 0.16

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
MrA:				
Mclaurin-----	Moderately limited Seepage	0.53	Limited Cutbanks cave	0.90
MrB:				
Mclaurin-----	Moderately limited Seepage	0.53	Limited Cutbanks cave Slope	0.90 0.10
MrC:				
Mclaurin-----	Moderately limited Seepage Slope	0.53 0.45	Very limited Slope Cutbanks cave	1.00 0.90
OmC:				
Olla-----	Moderately limited Seepage Slope	0.32 0.20	Limited Cutbanks cave Slope Slow percolation	0.90 0.78 0.26
Maubila-----	Very limited Seepage Slope	1.00 0.20	Limited Cutbanks cave Slope Slow percolation	0.90 0.78 0.40
PaA:				
Paxville, ponded-----	Slightly limited Seepage	0.28	Very limited Ponded (wetness)	1.00
Pd:				
Pits-----	Not rated		Not rated	
Udorthents-----	Very limited Slope	1.00	Not rated	
PeA:				
Prentiss-----	Not limited		Slightly limited Slow percolation	0.28
PwD:				
Prim-----	Very limited Bedrock at <20 in. Slope	1.00 0.10	Very limited Shallow to bedrock Large stones Slope	1.00 0.94 0.40
Suggsville-----	Limited Depth to bedrock Slope	0.68 0.30	Very limited Slow percolation Slope	1.00 0.98
Watsonia-----	Very limited Bedrock at <20 in. Slope	1.00 0.20	Very limited Slow percolation Shallow to bedrock Slope	1.00 1.00 0.78
PwF:				
Prim-----	Very limited Bedrock at <20 in. Slope	1.00 1.00	Very limited Slope Shallow to bedrock Large stones	1.00 1.00 0.94

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
PwF:				
Suggsville-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Depth to bedrock	0.68	Slow percolation	1.00
Watsonia-----	Very limited		Very limited	
	Bedrock at <20 in.	1.00	Slope	1.00
	Slope	1.00	Slow percolation	1.00
			Shallow to bedrock	1.00
QtA:				
Quitman-----	Moderately limited		Slightly limited	
	Seepage	0.53	Slow percolation	0.15
RuA:				
Ruston-----	Moderately limited		Limited	
	Seepage	0.53	Cutbanks cave	0.90
RuB:				
Ruston-----	Moderately limited		Limited	
	Seepage	0.53	Cutbanks cave	0.90
			Slope	0.10
RuC:				
Ruston-----	Moderately limited		Limited	
	Seepage	0.53	Slope	0.98
	Slope	0.30	Cutbanks cave	0.90
SaA:				
Savannah-----	Moderately limited		Not limited	
	Seepage	0.53		
SaB:				
Savannah-----	Moderately limited		Slightly limited	
	Seepage	0.53	Slope	0.10
SaC:				
Savannah-----	Moderately limited		Very limited	
	Seepage	0.53	Slope	1.00
	Slope	0.45		
ShB:				
Shubuta-----	Slightly limited		Moderately limited	
	Seepage	0.14	Slope	0.40
	Slope	0.10	Slow percolation	0.15
SmD:				
Smithdale-----	Very limited		Very limited	
	Seepage	1.00	Slope	1.00
	Slope	0.80		
SmE:				
Smithdale-----	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Seepage	1.00		
SoA:				
Stough-----	Not limited		Moderately limited	
			Flooding	0.60
			Slow percolation	0.15

# Soil Survey of Wayne County, Mississippi

Table 13a.--Water Management (Part 1)--Continued

Map symbol and soil name	Pond reservoir areas		Drainage	
	Rating class and limiting features	Value	Rating class and limiting features	Value
StC2:				
Sumter-----	Limited		Limited	
	Depth to bedrock	0.89	Slope	0.98
	Slope	0.30	Depth to bedrock	0.46
	Seepage	0.18		
Maytag-----	Moderately limited		Limited	
	Slope	0.30	Slope	0.98
			Slow percolation	0.40
SuB:				
Susquehanna----	Not limited		Very limited	
			Slow percolation	1.00
			Slope	0.10
TbA:				
Trebloc, ponded	Moderately limited		Very limited	
	Seepage	0.53	Ponded (wetness)	1.00
			Flooding	0.90
			Slow percolation	0.15
UaB:				
Una-----	Not limited		Very limited	
			Ponded (wetness)	1.00
			Slow percolation	1.00
			Flooding	0.90
Urbo-----	Not limited		Very limited	
			Slow percolation	1.00
			Flooding	0.90
WaB:				
Wadley-----	Moderately limited		Limited	
	Seepage	0.53	Cutbanks cave	0.90
			Slope	0.10
WsD:				
Wadley-----	Limited		Very limited	
	Slope	0.89	Slope	1.00
	Seepage	0.53	Cutbanks cave	0.90
Boykin-----	Very limited		Very limited	
	Seepage	1.00	Slope	1.00
	Slope	0.80	Cutbanks cave	0.90
Smithdale-----	Very limited		Somewhat limited	
	Seepage	1.00	Slope	0.16
	Slope	1.00	Cutbanks cave	0.10

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)

[The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table]

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AgB:						
Alaga-----	Very limited Fast intake Droughty	1.00 0.69	Very limited Too sandy	1.00	Limited Droughty	0.69
AnA:						
Annemaine-----	Moderately limited Slow percolation	0.40	Moderately limited Wetness	0.60	Moderately limited Wetness	0.60
BeB:						
Benndale-----	Slightly limited Slope	0.10	Not limited		Not limited	
BeC:						
Benndale-----	Limited Slope	0.98	Moderately limited Slope	0.30	Moderately limited Slope	0.30
BeD:						
Benndale-----	Very limited Slope	1.00	Limited Slope	0.89	Limited Slope	0.89
BkA:						
Bibb-----	Limited Flooding Erodes easily	0.90 0.60	Very limited Wetness Erodes easily	1.00 0.60	Very limited Wetness Erodes easily	1.00 0.60
Iuka-----	Limited Flooding	0.90	Moderately limited Too sandy Wetness	0.60 0.44	Moderately limited Wetness	0.44
BmB:						
Bigbee-----	Limited Fast intake Droughty	0.90 0.69	Moderately limited Too sandy	0.60	Limited Droughty	0.69
BoB2:						
Boswell-----	Very limited Slow percolation Slope	1.00 0.10	Not limited		Not limited	
BoC2:						
Boswell-----	Very limited Slow percolation Slope	1.00 1.00	Moderately limited Slope	0.60	Moderately limited Slope	0.60
BsE2:						
Boykin-----	Very limited Slope Fast intake Droughty	1.00 0.90 0.06	Limited Slope	0.80	Limited Slope Droughty	0.80 0.06
Luverne-----	Very limited Slope Slow percolation	1.00 0.17	Very limited Slope	1.00	Very limited Slope	1.00

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BsE2:						
Smithdale-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
BtD2:						
Brantley-----	Very limited Slope Slow percolation	1.00 0.40	Limited Slope	0.80	Limited Slope	0.80
Okeelala-----	Very limited Slope	1.00	Limited Slope	0.80	Limited Slope	0.80
BtE2:						
Okeelala-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Brantley-----	Very limited Slope Slow percolation	1.00 0.40	Very limited Slope	1.00	Very limited Slope	1.00
BtG2:						
Okeelala-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Brantley-----	Very limited Slope Slow percolation	1.00 0.40	Very limited Slope	1.00	Very limited Slope	1.00
CaA:						
Cahaba-----	Not limited		Not limited		Not limited	
CaB:						
Cahaba-----	Slightly limited Slope	0.10	Not limited		Not limited	
DgB:						
Dogue-----	Slightly limited Slow percolation Slope	0.17 0.02	Moderately limited Wetness	0.36	Moderately limited Wetness	0.36
FnA:						
Fluvaquents, ponded-----	Very limited Ponded (wetness) Flooding Erodes easily	1.00 0.90 0.60	Very limited Ponded (wetness) Wetness Erodes easily	1.00 1.00 0.60	Very limited Wetness Erodes easily	1.00 0.60
FsA:						
Freest-----	Moderately limited Slow percolation	0.40	Moderately limited Wetness	0.44	Moderately limited Wetness	0.44
FsB:						
Freest-----	Moderately limited Slow percolation Slope	0.40 0.10	Moderately limited Wetness	0.44	Moderately limited Wetness	0.44
FsC:						
Freest-----	Limited Slope Slow percolation	0.98 0.40	Moderately limited Wetness Slope	0.44 0.30	Moderately limited Wetness Slope	0.44 0.30

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HaA: Harleston-----	Not limited		Slightly limited Wetness	0.28	Slightly limited Wetness	0.28
HeD: Heidel-----	Very limited Slope	1.00	Limited Slope Too sandy	0.89 0.60	Limited Slope	0.89
HeE: Heidel-----	Very limited Slope	1.00	Very limited Slope Too sandy	1.00 0.60	Very limited Slope	1.00
IcB: Ichusa-----	Very limited Slow percolation Slow intake Slope	1.00 0.60 0.10	Moderately limited Wetness	0.36	Moderately limited Wetness	0.36
IrB: Irvington-----	Moderately limited Slope Slow percolation	0.40 0.17	Moderately limited Wetness Slope	0.60 0.10	Limited Rooting depth Wetness Slope	0.80 0.60 0.10
JnB: Jena-----	Limited Flooding Erodes easily	0.90 0.60	Moderately limited Erodes easily	0.60	Moderately limited Erodes easily	0.60
Una-----	Very limited Slow percolation Flooding Slow intake	1.00 0.90 0.60	Very limited Wetness	1.00	Very limited Wetness	1.00
Mantachie-----	Limited Flooding	0.90	Very limited Wetness	1.00	Very limited Wetness	1.00
LaA: Latonia-----	Limited Fast intake	0.90	Very limited Too sandy	1.00	Not limited	
LfA: Leaf-----	Very limited Slow percolation Flooding	1.00 0.90	Limited Wetness	0.99	Limited Wetness	0.99
LpA: Leeper-----	Very limited Slow percolation Flooding Slow intake	1.00 0.90 0.60	Very limited Wetness	1.00	Very limited Wetness	1.00
LrD: Lorman-----	Very limited Slope Slow percolation	1.00 1.00	Limited Slope	0.89	Limited Slope	0.89

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LrE:						
Lorman-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
	Slow percolation	1.00				
LtD:						
Lorman-----	Very limited Slow percolation	1.00	Moderately limited Slope	0.45	Moderately limited Slope	0.45
	Slope	1.00				
Petal-----	Very limited Slope	1.00	Limited Slope	0.70	Limited Slope	0.70
	Slow percolation	0.40	Wetness	0.60	Wetness	0.60
LuA:						
Louin-----	Very limited Slow percolation	1.00	Moderately limited Wetness	0.36	Moderately limited Wetness	0.36
	Slow intake	0.70				
LvA:						
Lucedale-----	Not limited		Not limited		Not limited	
MaA:						
Malbis-----	Not limited		Not limited		Not limited	
MaB:						
Malbis-----	Slightly limited Slope	0.10	Not limited		Not limited	
MaC:						
Malbis-----	Limited Slope	0.98	Moderately limited Slope	0.30	Moderately limited Slope	0.30
MbE:						
Maubila-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
	Slow percolation	0.40	Large stones	0.98	Large stones	0.98
			Wetness	0.44	Wetness	0.44
Olla-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
	Fast intake	0.90				
	Slow percolation	0.26				
Rattlesnake Forks-----	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
	Fast intake	0.90	Too sandy	0.60	Droughty	0.34
	Droughty	0.34				
MdA:						
McCrory-----	Very limited Excess sodium	1.00	Very limited Wetness	1.00	Very limited Wetness	1.00
	Flooding	0.60			Excess sodium	1.00
	Slow percolation	0.40				
Deerford-----	Moderately limited Flooding	0.60	Very limited Wetness	1.00	Very limited Wetness	1.00
	Slow percolation	0.40			Excess sodium	0.16
	Excess sodium	0.16				

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MrA: McLaurin-----	Not limited		Not limited		Not limited	
MrB: McLaurin-----	Slightly limited Slope	0.10	Not limited		Not limited	
MrC: McLaurin-----	Very limited Slope	1.00	Moderately limited Slope	0.45	Moderately limited Slope	0.45
OmC: Olla-----	Limited Fast intake Slope Slow percolation	0.90 0.78 0.26	Slightly limited Slope	0.20	Slightly limited Slope	0.20
Maubila-----	Limited Slope Slow percolation	0.78 0.40	Limited Large stones Wetness Slope	0.98 0.44 0.20	Limited Large stones Wetness Slope	0.98 0.44 0.20
PaA: Paxville, ponded-----	Very limited Ponded (wetness)	1.00	Very limited Ponded (wetness) Wetness	1.00 1.00	Very limited Wetness	1.00
Pd: Pits-----	Not rated		Not rated		Not rated	
Udorthents----	Not rated		Not rated		Not rated	
PeA: Prentiss-----	Slightly limited Slow percolation	0.28	Moderately limited Wetness	0.36	Limited Rooting depth Wetness	0.80 0.36
PwD: Prim-----	Very limited Droughty Shallow to bedrock Large stones	1.00 1.00 0.94	Very limited Depth to bedrock Large stones Slope	1.00 1.00 0.10	Very limited Large stones Droughty Bedrock at <20 in.	1.00 1.00 1.00
Suggsville-----	Very limited Slow percolation Slope Slow intake	1.00 0.98 0.79	Limited Depth to bedrock Slope	0.81 0.30	Limited Depth to bedrock Slope	0.68 0.30
Watsonia-----	Very limited Slow percolation Shallow to bedrock Droughty	1.00 1.00 0.99	Very limited Depth to bedrock Slope	1.00 0.20	Very limited Bedrock at <20 in. Droughty Slope	1.00 0.99 0.20
PwF: Prim-----	Very limited Droughty Slope Shallow to bedrock	1.00 1.00 1.00	Very limited Depth to bedrock Large stones Slope	1.00 1.00 1.00	Very limited Large stones Droughty Bedrock at <20 in.	1.00 1.00 1.00

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PwF:						
Suggsville-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Slow percolation	1.00	Depth to bedrock	0.81	Depth to bedrock	0.68
	Slow intake	0.79				
Watsonia-----	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to bedrock	1.00	Bedrock at <20 in.	1.00
	Slow percolation	1.00	Slope	1.00	Slope	1.00
	Shallow to bedrock	1.00			Droughty	0.99
QtA:						
Quitman-----	Slightly limited		Moderately limited		Moderately limited	
	Slow percolation	0.15	Wetness	0.52	Wetness	0.52
RuA:						
Ruston-----	Not limited		Not limited		Not limited	
RuB:						
Ruston-----	Slightly limited		Not limited		Not limited	
	Slope	0.10				
RuC:						
Ruston-----	Limited		Moderately limited		Moderately limited	
	Slope	0.98	Slope	0.30	Slope	0.30
SaA:						
Savannah-----	Not limited		Moderately limited		Limited	
			Wetness	0.36	Rooting depth	0.80
					Wetness	0.36
SaB:						
Savannah-----	Slightly limited		Moderately limited		Limited	
	Slope	0.10	Wetness	0.36	Rooting depth	0.80
					Wetness	0.36
SaC:						
Savannah-----	Very limited		Moderately limited		Limited	
	Slope	1.00	Slope	0.45	Rooting depth	0.80
			Wetness	0.36	Slope	0.45
					Wetness	0.36
ShB:						
Shubuta-----	Moderately limited		Slightly limited		Slightly limited	
	Slope	0.40	Slope	0.10	Slope	0.10
	Slow percolation	0.15				
SmD:						
Smithdale-----	Very limited		Limited		Limited	
	Slope	1.00	Slope	0.80	Slope	0.80
SmE:						
Smithdale-----	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
SoA:						
Stough-----	Moderately limited		Limited		Limited	
	Flooding	0.60	Wetness	0.81	Wetness	0.81
	Erodes easily	0.60	Erodes easily	0.60	Erodes easily	0.60
	Slow percolation	0.15			Droughty	0.00

# Soil Survey of Wayne County, Mississippi

Table 13b.--Water Management (Part 2)--Continued

Map symbol and soil name	Irrigation		Terraces and diversions		Grassed waterways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
StC2:						
Sumter-----	Limited		Very limited		Limited	
	Slope	0.98	Depth to bedrock	1.00	Depth to bedrock	0.89
	Erodes easily	0.60	Erodes easily	0.60	Erodes easily	0.60
	Slow intake	0.60	Slope	0.30	Slope	0.30
Maytag-----	Limited		Moderately limited		Moderately limited	
	Slope	0.98	Slope	0.30	Slope	0.30
	Slow intake	0.60				
	Slow percolation	0.40				
SuB:						
Susquehanna----	Very limited		Not limited		Not limited	
	Slow percolation	1.00				
	Slope	0.10				
TbA:						
Trebloc, ponded	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Ponded (wetness)	1.00	Wetness	1.00
	Flooding	0.90	Wetness	1.00	Erodes easily	0.60
	Erodes easily	0.60	Erodes easily	0.60		
UaB:						
Una-----	Very limited		Very limited		Very limited	
	Ponded (wetness)	1.00	Ponded (wetness)	1.00	Wetness	1.00
	Slow percolation	1.00	Wetness	1.00		
	Flooding	0.90				
Urbo-----	Very limited		Moderately limited		Moderately limited	
	Slow percolation	1.00	Wetness	0.60	Wetness	0.60
	Flooding	0.90				
	Slow intake	0.60				
WaB:						
Wadley-----	Very limited		Very limited		Not limited	
	Fast intake	1.00	Too sandy	1.00		
	Slope	0.10				
WsD:						
Wadley-----	Very limited		Very limited		Limited	
	Fast intake	1.00	Too sandy	1.00	Slope	0.89
	Slope	1.00	Slope	0.89		
Boykin-----	Very limited		Limited		Limited	
	Slope	1.00	Slope	0.80	Slope	0.80
	Fast intake	0.90			Droughty	0.06
	Droughty	0.06				
Smithdale-----	Not rated		Very limited		Very limited	
			Slope >8%	1.00	Slope >8%	1.00
			K factor	0.56		

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal

[The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation]

Map symbol and soil name	Poultry disposal
AgB: Alaga-----	Poorly suited (limitations need to be overcome) Seepage (possible)
AnA: Annemaine-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (rare) Seepage (possible)
BeB: Benndale-----	Moderately suited (limitations need to be considered) Seepage (possible)
BeC: Benndale-----	Moderately suited (limitations need to be considered) Seepage (possible)
BeD: Benndale-----	Moderately suited (limitations need to be considered) Seepage (possible) Slope
BkA: Bibb-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common) Seepage (possible)
Iuka-----	Very poorly suited (limitations are difficult to overcome) Flooding (common) High water table (winter-early spring) Seepage (possible)
BmB: Bigbee-----	Poorly suited (limitations need to be overcome) Seepage (possible) Flooding (rare)
BoB2: Boswell-----	Suited (slight or no limitations)
BoC2: Boswell-----	Suited (limitations need to be considered) Slope
BsE2: Boykin-----	Poorly suited (limitations need to be overcome) Seepage (possible) Slope
Luverne-----	Poorly suited (limitations need to be overcome) Slope
Smithdale-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
<b>BtD2:</b>	
Brantley-----	Suited (limitations need to be considered) Slope Seepage (possible)
Okeelala-----	Moderately suited (limitations need to be considered) Seepage (possible) Slope
<b>BtE2:</b>	
Okeelala-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
Brantley-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
<b>BtG2:</b>	
Okeelala-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
Brantley-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
<b>CaA:</b>	
Cahaba-----	Poorly suited (limitations need to be overcome) Seepage (possible)
<b>CaB:</b>	
Cahaba-----	Poorly suited (limitations need to be overcome) Seepage (possible)
<b>DgB:</b>	
Dogue-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring) Flooding (rare) Seepage (possible)
<b>FnA:</b>	
Fluvaquents, ponded----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common) Ponding (wetness)
<b>FsA:</b>	
Freest-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring)
<b>FsB:</b>	
Freest-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring)
<b>FsC:</b>	
Freest-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring)
<b>HaA:</b>	
Harleston-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring) Seepage (possible)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
HeD: Heidel-----	Moderately suited (limitations need to be considered) Seepage (possible) Slope
HeE: Heidel-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
IcB: Ichusa-----	Moderately suited (limitations need to be considered) High water table, perched (winter-early spring)
IrB: Irvington-----	Poorly suited (limitations need to be overcome) High water table, perched (winter-early spring)
JnB: Jena-----	Very poorly suited (limitations are difficult to overcome) Flooding (common) Seepage (possible)
Una-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common)
Mantachie-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common) Seepage (possible)
LaA: Latonia-----	Poorly suited (limitations need to be overcome) Seepage (possible)
LfA: Leaf-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common)
LpA: Leeper-----	Very poorly suited (limitations are difficult to overcome) High water table, perched: <1.0 ft. (winter-early spring) Flooding (common)
LrD: Lorman-----	Moderately suited (limitations need to be considered) Slope
LrE: Lorman-----	Poorly suited (limitations need to be overcome) Slope
LtD: Lorman-----	Suited (slight or no limitations)
Petal-----	Poorly suited (limitations need to be overcome) High water table, perched (winter-early spring) Slope
LuA: Louin-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
LvA: Lucedale-----	Suited (limitations need to be considered) Seepage (possible)
MaA: Malbis-----	Suited (limitations need to be considered) Seepage (possible)
MaB: Malbis-----	Suited (limitations need to be considered) Seepage (possible)
MaC: Malbis-----	Suited (limitations need to be considered) Seepage (possible)
MbE: Maubila-----	Poorly suited (limitations need to be overcome) Slope High water table, perched (winter-early spring) Seepage (possible)
Olla-----	Poorly suited (limitations need to be overcome) Slope
Rattlesnake Forks-----	Very poorly suited (limitations are difficult to overcome) Seepage (probable) Slope
MdA: McCrory-----	Very poorly suited (limitations are difficult to overcome) High water table, perched: <1.0 ft. (winter-early spring) Flooding (common)
Deerford-----	Very poorly suited (limitations are difficult to overcome) High water table, perched: <1.0 ft. (winter-early spring) Flooding (common)
MrA: McLaurin-----	Suited (limitations need to be considered) Seepage (possible)
MrB: McLaurin-----	Suited (limitations need to be considered) Seepage (possible)
MrC: McLaurin-----	Suited (limitations need to be considered) Seepage (possible)
OmC: Olla-----	Suited (slight or no limitations)
Maubila-----	Moderately suited (limitations need to be considered) High water table, perched (winter-early spring) Seepage (possible)
PaA: Paxville, ponded-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Ponding (wetness) Seepage (possible)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
Pd:	
Pits-----	Not rated
Udorthents-----	Poorly suited (limitations need to be overcome) Slope
PeA:	
Prentiss-----	Moderately suited (limitations need to be considered) High water table, perched (winter-early spring)
PwD:	
Prim-----	Very poorly suited (limitations are difficult to overcome) Bedrock <20" Large stones (surface layer) Large stones >10" 0-36"
Suggsville-----	Moderately suited (limitations need to be considered) Bedrock 40-60"
Watsonia-----	Very poorly suited (limitations are difficult to overcome) Bedrock <20"
PwF:	
Prim-----	Very poorly suited (limitations are difficult to overcome) Bedrock <20" Slope Large stones >10" 0-36"
Suggsville-----	Poorly suited (limitations need to be overcome) Slope Bedrock 40-60"
Watsonia-----	Very poorly suited (limitations are difficult to overcome) Bedrock <20" Slope
QtA:	
Quitman-----	Poorly suited (limitations need to be overcome) High water table, perched (winter-early spring) Seepage (possible)
RuA:	
Ruston-----	Suited (limitations need to be considered) Seepage (possible)
RuB:	
Ruston-----	Suited (limitations need to be considered) Seepage (possible)
RuC:	
Ruston-----	Suited (limitations need to be considered) Seepage (possible)
SaA:	
Savannah-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring) Seepage (possible)
SaB:	
Savannah-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring) Seepage (possible)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
SaC: Savannah-----	Poorly suited (limitations need to be overcome) High water table (winter-early spring) Seepage (possible)
ShB: Shubuta-----	Suited (limitations need to be considered) Seepage (possible)
SmD: Smithdale-----	Moderately suited (limitations need to be considered) Seepage (possible) Slope
SmE: Smithdale-----	Poorly suited (limitations need to be overcome) Slope Seepage (possible)
SoA: Stough-----	Very poorly suited (limitations are difficult to overcome) Flooding (common) High water table, perched (winter-early spring)
StC2: Sumter-----	Poorly suited (limitations need to be overcome) Bedrock 20-40" Seepage (possible)
Maytag-----	Suited (slight or no limitations)
SuB: Susquehanna-----	Suited (slight or no limitations)
TbA: Trebloc, ponded-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common) Ponding (wetness)
UaB: Una-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common) Ponding (wetness)
Urbo-----	Very poorly suited (limitations are difficult to overcome) High water table (winter-early spring) Flooding (common)
WaB: Wadley-----	Suited (limitations need to be considered) Seepage (possible)

# Soil Survey of Wayne County, Mississippi

Table 14.--Catastrophic Mortality, Poultry Disposal--Continued

Map symbol and soil name	Poultry disposal
WsD:	
Wadley-----	Moderately suited (limitations need to be considered) Slope Seepage (possible)
Boykin-----	Poorly suited (limitations need to be overcome) Seepage (possible) Slope
Smithdale-----	Moderately suited (limitations need to be considered) Seepage (possible) Slope

Table 15.--Engineering Soil Properties

[Absence of an entry indicates that the data were not estimated. An asterisk denotes the representative

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass- sieve number-		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
AgB: Alaga-----	In				Pct	Pct			
	0-6	*Fine sand	SM, SP-SM, SW-SM	A-1-b, A-2	0	0	100	100	89-97
	6-80	*Fine sand, loamy sand, loamy fine sand	SM, SP-SM, SW-SM	A-2	0	0	100	100	89-99
AnA: Annemaine-----	0-7	*Fine sandy loam	CL-ML, ML, SC-SM, SM	*A-4,	0	0	95-100	95-100	70-95
	7-15	*Clay, clay loam, silty clay	CL	*A-6, A-7	0	0	95-100	95-100	85-10
	15-39	*Clay, clay loam, silty clay loam	CH, CL, MH, ML	*A-7,	0	0	95-100	95-100	90-10
	39-55	*Sandy clay loam, loam, clay loam	CL, SC	*A-4, A-6	0	0	95-100	95-100	80-10
	55-81	*Sandy loam, fine sandy loam, loamy fine sand, fine sand	SC, SC-SM, SM	*A-2, A-4	0	0	95-100	95-100	60-90
BeB: Benndale-----	0-10	*Fine sandy loam	*SM, CL-ML, ML, SC-SM	A-2-4, A-4	0	0	100	100	60-96
	10-70	*Fine sandy loam, loam, sandy loam	ML, SM		0	0	100	100	70-95
	70-81	*Fine sandy loam, loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	95-100	95-100	60-95
BeC: Benndale-----	0-10	*Fine sandy loam	*SM, CL-ML, ML, SC-SM	A-2-4, A-4	0	0	100	100	60-96
	10-70	*Fine sandy loam, loam, sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-95
	70-81	*Fine sandy loam, loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	95-100	95-100	60-95
BeD: Benndale-----	0-10	*Fine sandy loam	*SM, CL-ML, ML, SC-SM	A-2-4, A-4	0	0	100	100	60-96
	10-70	*Fine sandy loam, loam, sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-95
	70-81	*Fine sandy loam, loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	95-100	95-100	60-95

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
BkA: Bibb-----	In				Pct	Pct			
	0-13	*Silt loam	*SM, CL-ML, ML, SC-SM	*A-4, A-2	0	0-5	95-100	90-100	60-90
	13-42	*Very fine sandy loam, Fine sandy loam, sandy loam	*SC-SM, CL- ML, ML, SM	*A-4, A-2	0	0-10	60-100	50-100	40-10
	42-74	*Fine sand, loamy fine sand, fine sandy loam, sandy loam	*SP-SM, SM	*A-3, A-1-b, A-2	0	0-5	95-100	90-100	40-90
	74-81	*Fine sandy loam, loamy fine sand, fine sand, sandy loam	*SP-SM, SM	*A-3, A-1-b, A-2	0	0-5	95-100	90-100	40-90
Iuka-----	0-8	*Fine sandy loam	*SM, CL-ML, ML, SC-SM	*A-4, A-2	0	0	95-100	90-100	70-10
	8-24	*Fine sandy loam, sandy loam, loamy fine sand	*SC-SM, ML, SM, CL-ML	*A-4,	0	0	95-100	85-100	65-10
	24-55	*Loamy fine sand, fine sandy loam, sandy loam	*SM, ML	*A-4, A-2	0	0	95-100	90-100	70-10
	55-81	*Fine sand, loamy fine sand, fine sandy loam			0	0	95-100	90-100	65-95
BmB: Bigbee-----	0-8	*Loamy fine sand	SM, SP-SM, SW-SM	A-1-b, A-2	0	0	100	100	89-99
	8-94	*Loamy sand, loamy fine sand, fine sand	SM, SP-SM, SW-SM	A-2	0	0	100	100	75-85
BoB2: Boswell-----	0-8	*Fine sandy loam	ML, SM	A-4	0	0	100	100	60-85
	8-85	*Clay, silty clay, silty clay loam	CH	A-7	0	0	100	100	90-10
BoC2: Boswell-----	0-8	*Fine sandy loam	ML, SM	A-4	0	0	100	100	60-85
	8-83	*Clay, silty clay, silty clay loam	CH	A-7	0	0	100	100	90-10
BsE2: Boykin-----	0-8	*Loamy fine sand	*SM,	*A-2,	0	0	97-100	91-100	85-10
	8-25	*Loamy fine sand, sand	*SM, SP-SM	*A-2,	0	0	97-100	91-100	86-10
	25-38	*Sandy loam, sandy clay loam, fine sandy loam	*SC, CL	*A-4, A-6	0	0	95-100	95-100	80-98
	38-78	*Sandy clay loam, sandy loam, fine sandy loam, clay loam	*SC, CL	*A-6, A-4	0	0	95-100	95-100	80-98

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
	In				Pct	Pct				
Bse2: Luverne-----	0-7	*Fine sandy loam	*SM, ML	*A-4, A-2	0	0-5	95-100	90-100	80-100	
	7-36	*Clay loam, sandy clay, clay	*ML, MH	*A-7, A-4, A- 5	0	0-5	95-100	84-100	75-100	
	36-49	*Clay loam, sandy clay loam	*ML, MH, SM	*A-7, A-4, A- 5	0	0-5	95-100	85-100	85-100	
	49-80	*Sandy clay loam, sandy loam, clay loam	*SC, SM, SC- SM	*A-6, A-4	0	0-5	95-100	95-100	70-100	
Smithdale-----	0-16	*Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	85-100	60-95	
	16-36	*Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	85-100	67-94	
	36-80	*Sandy loam, loam	CL, ML, SC, SM	A-4	0	0	100	85-100	---	
BtD2: Brantley-----	0-6	*Fine sandy loam	CL-ML, ML, SC-SM, SM	*A-4,	0	0	95-100	95-100	95-100	
	6-55	*Sandy clay loam, clay loam, sandy clay loam	CL, ML	*A-7,	0	0	95-100	90-100	58-94	
	55-90	*Sandy loam, fine sandy loam, sandy clay loam	ML, SC, SM	A-2, A-4	0	0	95-100	95-100	70-100	
	0-4	*Fine sandy loam	*SM,	*A-2,	0	0-5	98-100	84-100	73-95	
Okeelala-----	4-55	*Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	98-100	85-100	66-95	
	55-81	*Sandy loam, loamy sand, fine sandy loam	SM, SP-SM	A-2-4, A-3	0	0	98-100	85-100	59-85	
	0-4	*Fine sandy loam	*SM,	*A-2,	0	0-5	98-100	84-100	73-95	
	4-55	*Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	98-100	85-100	66-95	
BtE2: Okeelala-----	55-81	*Sandy loam, loamy sand, fine sandy loam	SM, SP-SM	A-2-4, A-3	0	0	98-100	85-100	59-85	
	0-4	*Fine sandy loam	*SM,	*A-2,	0	0-5	98-100	84-100	73-95	
	4-55	*Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	98-100	85-100	66-95	
	55-81	*Sandy loam, loamy sand, fine sandy loam	SM, SP-SM	A-2-4, A-3	0	0	98-100	85-100	59-85	
Brantley-----	0-6	*Fine sandy loam	CL-ML, ML, SC-SM, SM	*A-4,	0	0	95-100	95-100	95-100	
	6-55	*Sandy clay loam, clay loam, sandy clay loam	CL, ML	*A-7,	0	0	95-100	90-100	58-94	
	55-90	*Sandy loam, fine sandy loam, sandy clay loam	ML, SC, SM	A-2, A-4	0	0	95-100	95-100	70-100	

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass- sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
	In				Pct	Pct				
BtG2: Okeelala-----	0-4	*Fine sandy loam	*SM,	*A-2,	0	0-5	98-100	84-100	73-95	
	4-55	*Sandy clay loam, clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	98-100	85-100	66-95	
	55-81	*Sandy loam, loamy sand, fine sandy loam	SM, SP-SM	A-2-4, A-3	0	0	98-100	85-100	59-85	
Brantley-----	0-6	*Fine sandy loam	CL-ML, ML, SC-SM, SM	*A-4,	0	0	95-100	95-100	95-100	
	6-55	*Sandy clay loam, clay loam, sandy clay	CL, ML	*A-7,	0	0	95-100	90-100	58-94	
	55-90	*Sandy loam, fine sandy loam, sandy clay loam	ML, SC, SM	A-2, A-4	0	0	95-100	95-100	70-100	
CaA: Cahaba-----	0-9	*Fine sandy loam	*SM,	*A-4, A-2-4	0	0	95-100	95-100	65-90	
	9-45	*Sandy clay loam, loam, clay loam	CL, SC	*A-4, A-6	0	0	90-100	80-100	75-90	
	45-84	*Loamy sand, sand, sandy loam	SM, SP-SM	*A-2-4,	0	0	95-100	90-100	60-85	
CaB: Cahaba-----	0-9	*Fine sandy loam	*SM,	*A-4, A-2-4	0	0	95-100	95-100	65-90	
	9-45	*Sandy clay loam, loam, clay loam	CL, SC	*A-4, A-6	0	0	90-100	80-100	75-90	
	45-84	*Loamy sand, sand, sandy loam	SM, SP-SM	*A-2-4,	0	0	95-100	90-100	60-85	
DgB: Dogue-----	0-7	*Fine sandy loam	*SM, SC, SC- SM	*A-4, A-2	0	0	95-100	75-100	50-100	
	7-50	*Clay, clay loam, sandy clay	*CH, CL, SC	*A-7, A-6	0	0	95-100	75-100	65-100	
	50-83	*Sandy loam	*ML, SC, SC- SM, SM, SP- SM	*A-4, A-1, A- 2	0	0	100	100	64-89	
FnA: Fluvaquents, ponded-----	0-7	*Silt loam	*CL-ML, ML, SM	*A-4, A-2	0	0	100	90-100	60-90	
	7-80	*Stratified sandy loam to clay	*CL, ML	*A-7, A-4, A- 6	0	0	100	90-100	75-100	

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
FSA: Freest-----	0-12	*Fine sandy loam	CL, CL-ML, ML, SM	A-4	0	0	100	95-100	83-95
	12-31	*Sandy clay loam, loam	CL	A-4, A-6	0	0	100	95-100	71-95
	31-81	*Clay, clay loam, silty clay	CH, CL	A-7	0	0	100	95-100	74-10
FSB: Freest-----	0-12	*Fine sandy loam	CL, CL-ML, ML, SM	A-4	0	0	100	95-100	83-95
	12-31	*Sandy clay loam, loam	CL	A-4, A-6	0	0	100	95-100	71-95
	31-81	*Clay, clay loam, silty clay	CH, CL	A-7	0	0	100	95-100	74-10
FSC: Freest-----	0-12	*Fine sandy loam	CL, CL-ML, ML, SM	A-4	0	0	100	95-100	83-95
	12-31	*Sandy clay loam, loam	CL	A-4, A-6	0	0	100	95-100	71-95
	31-81	*Clay, clay loam, silty clay	CH, CL	A-7	0	0	100	95-100	74-10
HaA: Harlestone-----	0-13	*Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	89-100	74-100	62-98
	13-68	*Fine sandy loam, loam	CL, CL-ML, SC, SC-SM	A-2, A-4	0	0	91-100	77-100	68-98
	68-90	*Sandy clay loam, fine sandy loam, loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	91-100	77-100	56-98
HeD: Heidel-----	0-6	*Fine sandy loam	SM	A-4	0	0	90-100	85-100	70-85
	6-10	*Loamy fine sand, sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	90-100	85-100	60-85
	10-33	*Fine sandy loam, sandy loam, loam	CL, SC	A-4, A-6	0	0	90-100	85-100	80-95
HeE: Heidel-----	33-80	*Loamy fine sand, fine sand, fine sandy loam			0	0	90-100	85-100	50-76
	0-6	*Fine sandy loam	SM	A-4	0	0	90-100	85-100	70-85
	6-10	*Loamy fine sand, sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	90-100	85-100	60-85
	10-33	*Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-6	0	0	90-100	85-100	80-95
	33-80	*Loamy fine sand, fine sand, fine sandy loam			0	0	90-100	85-100	50-76
	0-6	*Fine sandy loam	SM	A-4	0	0	90-100	85-100	70-85
	6-10	*Loamy fine sand, sandy loam, fine sandy loam	CL-ML, SC-SM, SM	A-4	0	0	90-100	85-100	60-85
	10-33	*Sandy loam, fine sandy loam, loam	CL, SC	A-4, A-6	0	0	90-100	85-100	80-95
	33-80	*Loamy fine sand, fine sand, fine sandy loam			0	0	90-100	85-100	50-76

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
IcB: Ichusa-----	In				Pct	Pct				
	0-2	*Silty clay loam	CL	A-6, A-7	0	0	0	100	100	97-10
	2-11	*Silty clay, clay, silty clay loam	CH, CL	A-6, A-7	0	0	0	100	100	87-10
	11-85	*Clay, silty clay	CH, CL	A-7	0	0	0	100	100	82-10
IrB: Irvington-----	0-13	*Very fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	0	90-100	168-100	62-10
	13-19	*Loam, sandy clay loam, clay loam	CL, CL-ML, ML, SC	A-4, A-6	0	0	0	84-100	163-100	51-99
	19-76	*Loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	0	77-95	158-95	47-94
	76-81	*Sandy clay loam, clay loam, sandy clay	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	0	80-100	155-100	40-93
JnB: Jena-----	0-6	*Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	0	100	100	60-85
	6-45	*Sandy loam, fine sandy loam, very fine sandy loam, loam	CL, CL-ML, SC-SM	A-2-4, A-4	0	0	0	100	100	55-90
	45-81	*Loamy sand, fine sandy loam, sandy loam, loamy fine sand	SM	A-2-4, A-4	0	0	0	100	100	60-85
	0-2	*Silty clay loam	ML	A-4, A-6	0	0	0	100	95-100	70-95
Una-----	2-81	*Clay, silty clay loam, silty clay	CH, CL	A-7	0	0	0	100	95-100	90-10
	0-9	*Silt loam	*ML, CL	*A-4,	0	0	0	100	100	90-10
	9-20	*Loam, clay loam, sandy clay loam	*CL, SC	*A-6,	0	0	0	95-100	90-100	80-95
	20-39	*Clay loam, sandy clay loam, loam	*CL, SC	*A-6,	0	0	0	95-100	90-100	80-95
Mantachie-----	39-80	*Sandy loam, loam, sandy clay loam, loamy sand	*SM, ML, SC, CL-ML	*A-4, A-6	0	0	0	95-100	90-100	40-90
	0-8	*Loamy sand	SM	A-2-4	0	0	0	90-100	76-100	57-85
	8-32	*Fine sandy loam, sandy loam, loam	SM	A-2-4, A-4	0	0	0	90-100	76-100	68-96
	32-81	*Fine sand, sand, loamy sand	SM, SP-SM	A-2-4	0	0	0	90-100	76-100	69-98
LaA: Latonia-----	0-8	*Loamy sand	SM	A-2-4	0	0	0	90-100	76-100	57-85
	8-32	*Fine sandy loam, sandy loam, loam	SM	A-2-4, A-4	0	0	0	90-100	76-100	68-96
	32-81	*Fine sand, sand, loamy sand	SM, SP-SM	A-2-4	0	0	0	90-100	76-100	69-98

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
LfA: Leaf-----	0-7	*Silt loam	CL, ML	A-4, A-6	0	0	100	95-100	85-10
	7-49	*Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	100	95-100	90-10
	49-81	*Clay loam, sandy clay loam, loam	CH, CL	A-7	0	0	100	95-100	90-10
IpA: leeper-----	0-4	*Silty clay loam	*CL, CH	*A-7,					
	4-60	*Clay, silty clay, clay loam	*CH,	*A-7,	0	0	100	100	95-10
LrD: Lorman-----	0-12	*Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	65-90
	12-73	*Clay, silty clay, silty clay loam	CH, CL	A-7	0	0	94-100	89-100	75-10
	73-81	*Clay, variable			0	0	100	100	85-10
LrE: Lorman-----	0-12	*Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	65-90
	12-73	*Clay, silty clay, silty clay loam	CH, CL	A-7	0	0	94-100	89-100	75-10
	73-81	*Clay, variable			0	0	100	100	85-10
LtD: Lorman-----	0-12	*Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	65-90
	12-73	*Clay, silty clay, silty clay loam	CH, CL	A-7	0	0	94-100	89-100	75-10
	73-81	*Clay, variable			0	0	100	100	85-10
Petal-----	0-9	*Fine sandy loam	CL, CL-ML, ML, SM	A-4	0	0	100	95-100	87-10
	9-27	*Sandy clay loam, loam, clay loam	CL	A-4, A-6	0	0	100	95-100	75-94
	27-81	*Clay, clay loam, silty clay	CH, CL	A-6, A-7	0	0	100	95-100	77-10
LuA: Louin-----	0-3	*Silty clay	CL	A-6, A-7	0	0	100	100	79-10
	3-11	*Silty clay, clay	CH	A-7	0	0	100	100	89-10
	11-81	*Clay, silty clay	CH	A-7	0	0	100	100	82-10

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
LvA: Lucedale-----	In				Pct	Pct				
	0-9	*Sandy loam	ML, SM	A-2, A-4	0	0	100	95-100	80-95	
	9-83	*Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	95-100	95-100	80-10	
MaA: Malbis-----	0-9	*Fine sandy loam	ML, SM	A-4	0	0	100	96-100	84-10	
	9-29	*Loam, sandy clay loam, clay loam	CL, CL-ML	A-4, A-6	0	0	98-100	93-100	77-98	
	29-68	*Loam, sandy clay loam, clay loam	CL, ML	A-4, A-6, A-7	0	0	98-100	95-100	81-10	
	68-82	*Sandy clay loam, clay loam	CL, ML	A-4, A-5, A- 6, A-7	0	0	98-100	95-100	76-94	
MaB: Malbis-----	0-9	*Fine sandy loam	ML, SM	A-4	0	0	100	96-100	84-10	
	9-29	*Loam, sandy clay loam, clay loam	CL, CL-ML	A-4, A-6	0	0	98-100	93-100	77-98	
	29-68	*Loam, sandy clay loam, clay loam	CL, ML	A-4, A-6, A-7	0	0	98-100	95-100	81-10	
	68-82	*Sandy clay loam, clay loam	CL, ML	A-4, A-5, A- 6, A-7	0	0	98-100	95-100	76-94	
MaC: Malbis-----	0-9	*Fine sandy loam	ML, SM	A-4	0	0	100	96-100	84-10	
	9-29	*Loam, sandy clay loam, clay loam	CL, CL-ML	A-4, A-6	0	0	98-100	93-100	77-98	
	29-68	*Loam, sandy clay loam, clay loam	CL, ML	A-4, A-6, A-7	0	0	98-100	95-100	81-10	
	68-82	*Sandy clay loam, clay loam	CL, ML	A-4, A-5, A- 6, A-7	0	0	98-100	95-100	76-94	
MbE: Maubila-----	0-9	*Flaggy sandy loam	*SM, SC-SM, SP-SM	*A-2,	0-10	10-35	85-100	85-100	60-95	
	9-29	*Flaggy sandy loam, loamy fine sand, flaggy loamy sand	*SM, SC-SM, SP-SM	*A-2,	0-10	10-35	85-100	85-100	55-95	
	29-56	*Clay loam, clay, sandy clay loam	*CL, CH	*A-7, A-6	0	0-10	95-100	90-100	85-10	
	56-68	*Clay, clay loam, silty clay	*CL, CH	*A-7, A-7-6, A-6	0	0	95-100	90-100	85-10	
	68-82	*Clay, clay loam, silty clay	*CH, CL	*A-7-6, A-7	0	0	95-100	90-100	85-10	

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
MbE: Olla-----	0-4	*Loamy fine sand	SC-SM, SM	*A-2,	0	0	95-100	90-100	75-90
	4-13	*Loamy fine sand, fine sandy loam	SC, SC-SM, SM	*A-2, A-4	0	0	95-100	90-100	60-95
	13-22	*Sandy clay loam, clay loam	*SC,	*A-6, A-2-6, A-7	0	0	95-100	90-100	60-90
	22-37	*Fine sandy loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	*A-4, A-2, A- 6, A-7	0	0	85-100	80-100	60-95
	37-80	*Sandy clay loam, clay loam, sandy clay	*CH, CL	*A-6, A-7, A- 7-6	0	0	95-100	90-100	85-10
Rattlesnake Forks-----	0-6	*Loamy sand	*SP-SM, SM	*A-3, A-2-4	0	0	95-100	85-100	66-81
	6-50	*Loamy sand	*SP-SM, SM	*A-3, A-2-4	0	0	95-100	85-100	60-75
	50-55	*Sand	*SP-SM,	*A-3, A-2-4	0	0	95-100	90-100	60-10
	55-80	*Sand, loamy sand	*SM, SP-SM	*A-2-4,	0	0	95-100	90-100	60-10
MdA: McCroary-----	0-4	*Silt loam	*ML, CL-ML	*A-4,	0	0	100	100	90-10
	4-14	*Silt loam, loam, fine sandy loam	*CL-ML, ML	*A-4,	0	0	100	100	90-10
	14-23	*Loam, sandy clay loam	*CL, CL-ML, SC	*A-4, A-6	0	0	100	100	80-95
	23-58	*Loam, fine sandy loam, sandy clay loam	*CL, CL-ML, SC	*A-6, A-4	0	0	100	100	70-90
	58-72	*Fine sandy loam, very fine sandy loam	*SM, SC-SM	*A-4,	0	0	100	100	60-85
Deerford-----	0-3	*Silt loam	*ML, CL-ML	*A-4,	0	0	100	100	100
	3-10	*Very fine sandy loam, Fine sandy loam	*ML, CL-ML	*A-4,	0	0	100	100	100
	10-35	*Sandy clay loam, clay loam, loam	*CL,	*A-6, A-4	0	0	100	100	100
	35-49	*Loam, clay loam, sandy clay loam	*CL,	*A-6, A-4	0	0	100	100	100
	49-80	*Very fine sandy loam, loam, sandy clay loam	*CL, CL-ML	*A-4, A-6	0	0	100	100	80-10
MrA: McLaurin-----	0-6	*Fine sandy loam	SM	A-4	0	0	90-100	90-100	70-85
	6-32	*Sandy loam, fine sandy loam, loam	SC, SC-SM, SM	A-4	0	0	90-100	90-100	85-95
	32-38	*Sandy loam, loamy fine sand, loamy sand	SM	A-2, A-4	0	0	90-100	90-100	50-85
	38-80	*Sandy loam, sandy clay loam, loam	CL, ML, SC, SM	A-4, A-6	0	0	90-100	90-100	70-80

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--			
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	
	In				Pct	Pct				
MrB: McLaurin-----	0-6	*Fine sandy loam	SM	A-4		0	0	90-100	90-100	70-85
	6-32	*Sandy loam, fine sandy loam, loam	SC, SC-SM, SM	A-4		0	0	90-100	90-100	85-95
	32-38	*Sandy loam, loamy fine sand, loamy sand	SM	A-2, A-4		0	0	90-100	90-100	50-85
	38-80	*Sandy loam, sandy clay loam, loam	CL, ML, SC, SM	A-4, A-6		0	0	90-100	90-100	70-80
MrC: McLaurin-----	0-6	*Fine sandy loam	SM	A-4		0	0	90-100	90-100	70-85
	6-32	*Sandy loam, fine sandy loam, loam	SC, SC-SM, SM	A-4		0	0	90-100	90-100	85-95
	32-38	*Sandy loam, loamy fine sand, loamy sand	SM	A-2, A-4		0	0	90-100	90-100	50-85
	38-80	*Sandy loam, sandy clay loam, loam	CL, ML, SC, SM	A-4, A-6		0	0	90-100	90-100	70-80
OmC: Olla-----	0-4	*Loamy fine sand	SC-SM, SM	*A-2,		0	0	95-100	90-100	75-90
	4-13	*Loamy fine sand, fine sandy loam	SC, SC-SM, SM	*A-2, A-4		0	0	95-100	90-100	60-95
	13-22	*Sandy clay loam, clay loam	*SC,	*A-6, A-2-6, A-7		0	0	95-100	90-100	60-90
	22-37	*Fine sandy loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	*A-4, A-2, A- 6, A-7		0	0	85-100	80-100	60-95
	37-80	*Sandy clay loam, clay loam, sandy clay	*CH, CL	*A-6, A-7, A- 7-6		0	0	95-100	90-100	85-10
	0-9	*Flaggy sandy loam	*SM, SC-SM, SP-SM	*A-2,	0-10	10-35		85-100	85-100	60-95
Maubila-----	9-29	*Flaggy sandy loam, loamy fine sand, flaggy loamy sand	*SM, SC-SM, SP-SM	*A-2,	0-10	10-35		85-100	85-100	55-95
	29-56	*Clay loam, clay loam, sandy clay loam	*CL, CH	*A-7, A-6	0	0-10		95-100	90-100	85-10
	56-68	*Clay, clay loam, silty clay	*CL, CH	*A-7, A-7-6, A-6	0	0		95-100	90-100	85-10
	68-82	*Clay, clay loam, silty clay	*CH, CL	*A-7-6, A-7	0	0		95-100	90-100	85-10

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
PaA: Paxville, ponded	0-15	*Loam	CL-ML, ML	A-4	0	0	95-100	95-100	70-100
	15-34	*Clay loam, sandy clay loam, loam	CL, ML, SC, SM	A-4	0	0	100	98-100	85-100
	34-57	*Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	99-100	98-100	90-100
	57-83	*Sandy loam, sandy clay loam, clay loam	CL, CL-ML, SC, SC-SM	A-2, A-4, A-6	0	0	98-100	98-100	65-85
Pd: Pits-----	0-80	*Fine sandy loam	ML, SM	A-2-4, A-4	0	0	100	90-100	55-80
Udorthents.									
PeA: Prentiss-----	0-8	*Fine sandy loam	SC, SC-SM, SM	A-4	0	0	100	100	65-85
	8-19	*Fine sandy loam, loam, silt loam	CL, CL-ML, ML	A-2, A-4	0	0	100	100	85-98
	19-52	*Fine sandy loam, sandy loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	88-98
	52-81	*Sandy clay loam, loam, clay loam	CL, CL-ML, SC	A-2, A-4, A-6, A-7	0	0	96-100	87-100	69-94
PwD: Prim-----	0-7	*Very cobbly clay loam	*GC, GC-GM	*A-7, A-6	0-24	15-30	75-90	40-70	40-70
	7-15	*Extremely cobbly sandy loam, very cobbly loam, extremely cobbly clay loam	*GC, GC-GM	*A-4, A-6	0-20	24-60	70-85	20-50	10-45
	15-80	*Weathered bedrock	---	---	---	---	---	---	---
	0-4	*Clay	*CH,	*A-7,	0	0	100	100	90-100
Suggsville-----	4-11	*Clay, silty clay	*CH,	*A-7,	0	0	100	100	95-100
	11-42	*Clay, silty clay	*CH,	*A-7,	0	0	100	100	95-100
	42-80	*Weathered bedrock	---	---	---	---	---	---	---
	0-4	*Clay	*CH,	*A-7,	0	0	100	92-100	75-100
Watsonia-----	4-15	*Clay, silty clay	*CH,	*A-7,	0	0	100	92-100	75-100
	15-17	*Clay, silty clay	*CH,	*A-7,	0	0	100	95-100	75-100
	17-80	*Weathered bedrock	---	---	---	---	---	---	---

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
PwF: Prim-----	0-7	*Very cobbly clay loam	*GC, GC-GM	*A-7, A-6	0-24	15-30	75-90	40-70	40-70
	7-15	*Extremely cobbly sandy loam, very cobbly loam, extremely cobbly clay loam	*GC, GC-GM	*A-4, A-6	0-20	24-60	70-85	20-50	10-45
	15-80	*Weathered bedrock	---	---	---	---	---	---	---
	0-4	*Clay	*CH,	*A-7,	0	0	100	100	90-100
Suggsville-----	4-11	*Clay, silty clay	*CH,	*A-7,	0	0	100	100	95-100
	11-42	*Clay, silty clay	*CH,	*A-7,	0	0	100	100	95-100
	42-80	*Weathered bedrock	---	---	---	---	---	---	---
	0-4	*Clay	*CH,	*A-7,	0	0	100	92-100	75-100
Watsonia-----	4-15	*Clay, silty clay	*CH,	*A-7,	0	0	100	92-100	75-100
	15-17	*Clay, silty clay	*CH,	*A-7,	0	0	100	95-100	75-100
	17-80	*Weathered bedrock	---	---	---	---	---	---	---
	0-4	*Clay	*CH,	*A-7,	0	0	100	92-100	75-100
QtA: Quitman-----	0-10	*Fine sandy loam	ML, SM	A-2, A-4	0	0	100	100	85-100
	10-24	*Sandy clay loam, loam, fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	90-100
	24-80	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7	0	0	100	100	90-100
	0-8	*Fine sandy loam	CL-ML, ML,	SM A-2-4, A-4	0	0	100	85-100	65-85
RuA: Ruston-----	8-23	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
	23-44	*Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	100	85-100	64-90
	44-84	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
	0-8	*Fine sandy loam	CL-ML, ML,	SM A-2-4, A-4	0	0	100	85-100	65-85
RuB: Ruston-----	8-23	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
	23-44	*Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	100	85-100	64-90
	44-84	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
	0-8	*Fine sandy loam	CL-ML, ML,	SM A-2-4, A-4	0	0	100	85-100	65-85

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
RuC: Ruston-----	0-8	*Fine sandy loam	CL-ML, ML, SM	A-2-4, A-4	0	0	100	85-100	65-85
	8-23	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
	23-44	*Sandy clay loam, fine sandy loam, sandy loam, loamy sand	CL-ML, ML, SC-SM, SM	A-2-4, A-4	0	0	100	85-100	64-90
	44-84	*Sandy clay loam, loam, clay loam	CL, SC	A-6, A-7-6	0	0	100	85-100	80-95
SaA: Savannah-----	0-5	*Fine sandy loam	ML, SM	A-2-4, A-4	0	0	98-100	90-100	60-100
	5-29	*Loam, sandy clay loam, clay loam	CL, CL-ML, SC	A-4, A-6	0	0	98-100	89-100	74-97
	29-85	*Loam, clay loam, sandy clay loam	CL, CL-ML, SC	A-2, A-4, A- 6, A-7	0	0	94-100	90-100	60-100
	0-5	*Fine sandy loam	ML, SM	A-2-4, A-4	0	0	98-100	90-100	60-100
SaB: Savannah-----	5-29	*Loam, sandy clay loam, clay loam	CL, CL-ML, SC	A-4, A-6	0	0	98-100	89-100	74-97
	29-85	*Loam, clay loam, sandy clay loam	CL, CL-ML, SC	A-2, A-4, A- 6, A-7	0	0	94-100	90-100	60-100
	0-5	*Fine sandy loam	ML, SM	A-2-4, A-4	0	0	98-100	90-100	60-100
	5-29	*Loam, sandy clay loam, clay loam	CL, CL-ML, SC	A-4, A-6	0	0	98-100	89-100	74-97
SaC: Savannah-----	29-85	*Loam, clay loam, sandy clay loam	CL, CL-ML, SC	A-2, A-4, A- 6, A-7	0	0	94-100	90-100	60-100
	0-5	*Fine sandy loam	ML, SM	A-2-4, A-4	0	0	98-100	90-100	60-100
	5-29	*Loam, sandy clay loam, clay loam	CL, CL-ML, SC	A-4, A-6	0	0	98-100	89-100	74-97
	29-85	*Loam, clay loam, sandy clay loam	CL, CL-ML, SC	A-2, A-4, A- 6, A-7	0	0	94-100	90-100	60-100
ShB: Shubuta-----	0-7	*Fine sandy loam	CL, CL-ML, ML	A-4	0	0	100	100	90-100
	7-57	*Clay loam, clay, silty clay, silty clay loam	MH	A-7	0	0	95-100	90-100	76-100
	57-65	*Fine sandy loam, sandy clay loam, clay, clay loam	CH, CL, MH	A-6, A-7	0	0	95-100	80-100	80-100
	65-80	*Stratified sandy loam to fine sandy loam to loam to sandy clay loam to clay loam to clay	MH, ML	A-7	0	0	95-100	73-100	50-100

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
	In				Pct	Pct			
SMD: Smithdale-----	0-16	*Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	85-100	60-95
	16-36	*Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	85-100	67-94
	36-80	*Sandy loam, loam	CL, ML, SC, SM	A-4	0	0	100	85-100	---
SmE: Smithdale-----	0-16	*Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	85-100	60-95
	16-36	*Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	85-100	67-94
	36-80	*Sandy loam, loam	CL, ML, SC, SM	A-4	0	0	100	85-100	---
SoA: Stough-----	0-7	*Fine sandy loam	CL-ML, ML	A-4	0	0	100	100	87-95
	7-27	*Fine sandy loam, loam, sandy loam	CL, CL-ML, ML	A-4	0	0	100	100	---
	27-81	*Loam, fine sandy loam, sandy loam, sandy clay loam	CL, SC	A-4, A-6	0	0	100	100	---
StC2: Sumter-----	0-5	*Silty clay loam	*CL,	*A-7, A-6	0	0	90-100	85-100	80-98
	5-27	*Silty clay, clay, silty clay loam	*CH, CL	*A-7, A-6	0	0	85-100	78-98	75-95
	27-80	*Weathered bedrock			0	0	---	---	---
Maytag-----	0-5	*Silty clay loam	*CL, CL-ML, ML	*A-7, A-4, A- 6	0	0	98-100	95-100	90-100
	5-52	*Silty clay, clay, silty clay loam	*CH, MH	*A-7,	0	0	98-100	95-100	90-100
	52-80	*Silty clay, clay, silty clay loam	*CH, MH	*A-7,	0	0	98-100	95-100	90-100
SuB: Susquehanna-----	0-9	*Fine sandy loam	ML, SM	A-4	0	0	100	100	86-96
	9-70	*Clay, silty clay loam, silty clay	CH	A-7	0	0	100	100	80-100

Table 15.--Engineering Soil Properties--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage pass sieve number--		
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40
TbA: Treblloc, ponded-	In				Pct	Pct			
	0-15	*Silt loam	CL-ML, ML	A-4	0	0	100	100	85-10
	15-39	*Silty clay loam, silty clay, clay	CL	A-6, A-7, A-4	0	0	100	100	85-10
	39-65	*Silty clay, clay, silty clay loam	CL	A-4, A-6	0	0	100	100	85-10
	65-83	*Sandy loam, sand, loamy sand, sandy clay loam	SM	A-4, A-6	0	0	100	100	85-10
UaB: Una-----	0-9	*Silty clay loam	ML	A-4, A-6	0	0	100	95-100	70-95
	9-72	*Clay, silty clay loam, silty clay	CH, CL	A-7	0	0	100	95-100	90-10
Urbo-----	0-8	*Silty clay loam	CH, CL	A-7	0	0	100	100	86-10
	8-73	*Clay, silty clay, clay loam, silty clay loam	CH, CL	A-7	0	0	100	100	85-10
	73-84	*Silty clay, clay, silty clay loam, clay loam	CH, CL	A-7	0	0	100	100	84-10
WaB: Wadley-----	0-6	*Fine sand	SM, SP-SM	A-2-4, A-3	0	0	100	95-100	87-96
	6-80	*Fine sand, sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0	0	100	95-100	85-10
WSD: Wadley-----	0-6	*Fine sand	SM, SP-SM	A-2-4, A-3	0	0	100	95-100	87-96
	6-83	*Fine sand, sandy loam, fine sandy loam, sandy clay loam	SC, SC-SM, SM	A-2, A-4, A-6	0	0	100	95-100	85-10
Boykin-----	0-8	*Loamy fine sand	*SM,	*A-2,	0	0	97-100	91-100	85-10
	8-25	*Loamy fine sand, sand	*SM, SP-SM	*A-2,	0	0	97-100	91-100	86-10
	25-38	*Sandy loam, sandy clay loam, fine sandy loam	*SC, CL	*A-4, A-6	0	0	95-100	95-100	80-98
	38-78	*Sandy clay loam, sandy loam, fine sandy loam, clay loam	*SC, CL	*A-6, A-4	0	0	95-100	95-100	80-98
Smithdale-----	0-16	*Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	85-100	60-95
	16-36	*Sandy clay loam, clay loam, loam	CL, CL-ML,	A-4, A-6	0	0	100	85-100	67-94
	36-80	*Sandy loam, loam	SC, SC-SM						
			CL, ML, SC, SM	A-4	0	0	100	85-100	---

Table 16.--Physical Soil Properties

[Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "index" apply only to the surface layer. Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
AgB: Alaga-----	0-6	---	---	2-10	1.60-1.75	6-20	0.05-0.09	0.0-2.9	0.5-3.0	.10
	6-80	---	---	2-12	1.60-1.75	6-20	0.05-0.09	0.0-2.9	0.0-0.5	.10
AnA: Annemaine-----	0-7	---	---	10-20	1.30-1.55	0.6-2	0.12-0.16	0.0-2.9	0.5-1.0	.28
	7-15	---	---	35-50	1.30-1.45	0.06-0.2	0.14-0.18	3.0-5.9	0.1-0.5	.37
	15-39	---	---	35-60	1.25-1.40	0.06-0.2	0.14-0.18	3.0-5.9	0.1-0.5	.37
	39-55	---	---	20-35	1.30-1.60	0.2-0.6	0.14-0.18	0.0-2.9	0.0-0.2	.37
	55-81	---	---	5-25	1.40-1.60	0.2-2	0.14-0.18	0.0-2.9	0.0-0.2	.32
BeB: Benndale-----	0-10	---	---	6-14	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	1.0-3.0	.20
	10-70	---	---	10-18	1.55-1.65	0.6-2	0.12-0.18	0.0-2.9	0.1-0.5	.28
	70-81	---	---	6-20	1.55-1.65	2-6	0.10-0.15	0.0-2.9	0.0-0.2	.28
BeC: Benndale-----	0-10	---	---	6-14	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	1.0-3.0	.20
	10-70	---	---	10-18	1.55-1.65	0.6-2	0.12-0.18	0.0-2.9	0.1-0.5	.28
	70-81	---	---	6-20	1.55-1.65	2-6	0.10-0.15	0.0-2.9	0.0-0.2	.28
BeD: Benndale-----	0-10	---	---	6-14	1.45-1.55	0.6-2	0.10-0.15	0.0-2.9	1.0-3.0	.20
	10-70	---	---	10-18	1.55-1.65	0.6-2	0.12-0.18	0.0-2.9	0.1-0.5	.28
	70-81	---	---	6-20	1.55-1.65	2-6	0.10-0.15	0.0-2.9	0.0-0.2	.28
BkA: Bibb-----	0-13	---	---	2-18	1.50-1.70	0.6-2	0.12-0.18	0.0-2.9	2.0-5.0	.37
	13-42	---	---	2-18	1.45-1.75	0.6-2	0.10-0.20	0.0-2.9	0.5-1.0	.37
	42-74	---	---	2-12	1.60-1.75	2-6	0.06-0.10	0.0-2.9	0.0-0.5	.10
	74-81	---	---	4-15	1.60-1.75	0.6-2	0.12-0.18	0.0-2.9	0.5-1.0	.20
Iuka-----	0-8	---	---	6-15	1.33-1.45	2-6	0.13-0.15	0.0-2.9	0.5-3.0	.24
	8-24	---	---	8-18	1.33-1.45	0.6-2	0.10-0.20	0.0-2.9	0.2-2.0	.24
	24-55	---	---	5-15	1.35-1.45	2-6	0.08-0.12	0.0-2.9	0.2-1.2	.17
	55-81	---	---	0-9	1.20-1.35	6-20	0.05-0.08	0.0-2.9	0.2-0.8	.10
BmB: Bigbee-----	0-8	---	---	2-12	1.60-1.75	6-20	0.05-0.09	0.0-2.9	0.5-3.0	.10
	8-94	---	---	2-12	1.60-1.75	6-20	0.05-0.09	0.0-2.9	0.0-0.5	.10

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
BoE2: Boswell-----	0-8	---	---	5-20	1.40-1.55	0.6-2	0.15-0.20	0.0-2.9	1.0-4.0	.28
	8-85	---	---	38-60	1.30-1.60	0.00-0.06	0.14-0.18	6.0-8.9	0.1-0.3	.32
BoC2: Boswell-----	0-8	---	---	5-20	1.40-1.55	0.6-2	0.15-0.20	0.0-2.9	1.0-4.0	.28
	8-83	---	---	38-60	1.30-1.60	0.00-0.06	0.14-0.18	6.0-8.9	0.1-0.3	.32
BsE2: Boykin-----	0-8	72-88	5-25	1-10	1.40-1.60	6-20	0.05-0.09	0.0-2.9	0.5-1.0	.10
	8-25	72-95	5-25	1-10	1.40-1.60	6-20	0.05-0.09	0.0-2.9	0.1-0.5	.10
	25-38	55-80	5-25	10-30	1.45-1.70	0.6-2	0.10-0.16	0.0-2.9	0.1-0.5	.28
	38-78	35-75	5-35	18-35	1.45-1.70	0.6-2	0.10-0.16	0.0-2.9	0.1-0.5	.28
Luverne-----	0-7	---	5-40	7-20	1.35-1.65	2-6	0.11-0.15	0.0-2.9	0.5-2.0	.24
	7-36	---	---	35-50	1.25-1.55	0.2-0.6	0.12-0.18	3.0-5.9	0.0-0.0	.28
	36-49	---	---	20-40	1.35-1.65	0.2-0.6	0.12-0.18	0.0-2.9	0.0-0.0	.28
	49-80	---	---	10-35	1.35-1.65	0.2-0.6	0.05-0.10	0.0-2.9	0.0-0.0	.28
Smithdale-----	0-16	---	---	2-15	1.40-1.50	2-6	0.14-0.16	0.0-2.9	0.5-2.0	.28
	16-36	---	---	18-33	1.40-1.55	0.6-2	0.15-0.17	0.0-2.9	0.2-0.8	.24
	36-80	---	---	12-27	1.40-1.55	2-6	0.14-0.16	0.0-2.9	0.1-0.5	.28
Btd2: Brantley-----	0-6	---	---	8-21	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	6-55	---	---	21-50	1.35-1.55	0.06-0.2	0.12-0.20	3.0-5.9	0.5-1.0	.28
	55-90	---	---	10-25	1.40-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
Okeelala-----	0-4	---	---	7-15	1.30-1.50	2-6	0.09-0.12	0.0-2.9	0.5-2.0	.20
	4-55	---	---	18-35	1.35-1.55	0.6-2	0.12-0.15	0.0-2.9	0.1-0.5	.24
	55-81	---	---	2-18	1.40-1.60	2-6	0.07-0.12	0.0-2.9	0.1-0.2	.15
BtE2: Okeelala-----	0-4	---	---	7-15	1.30-1.50	2-6	0.09-0.12	0.0-2.9	0.5-2.0	.20
	4-55	---	---	18-35	1.35-1.55	0.6-2	0.12-0.15	0.0-2.9	0.1-0.5	.24
	55-81	---	---	2-18	1.40-1.60	2-6	0.07-0.12	0.0-2.9	0.1-0.2	.15
Brantley-----	0-6	---	---	8-21	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	6-55	---	---	21-50	1.35-1.55	0.06-0.2	0.12-0.20	3.0-5.9	0.5-1.0	.28
	55-90	---	---	10-25	1.40-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
BtG2: Okeelala-----	0-4	---	---	7-15	1.30-1.50	2-6	0.09-0.12	0.0-2.9	0.5-2.0	.20
	4-55	---	---	18-35	1.35-1.55	0.6-2	0.12-0.15	0.0-2.9	0.1-0.5	.24
	55-81	---	---	2-18	1.40-1.60	2-6	0.07-0.12	0.0-2.9	0.1-0.2	.15

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
BtG2: Brantley-----	0-6	---	---	8-21	1.35-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	6-55	---	---	21-50	1.35-1.55	0.06-0.2	0.12-0.20	3.0-5.9	0.5-1.0	.28
	55-90	---	---	10-25	1.40-1.65	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
CaA: Cahaba-----	0-9	---	---	7-17	1.35-1.60	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.24
	9-45	---	---	18-35	1.35-1.60	0.6-2	0.12-0.20	0.0-2.9	0.1-0.5	.28
	45-84	---	---	4-20	1.40-1.70	2-20	0.05-0.10	0.0-2.9	0.1-0.5	.24
CaB: Cahaba-----	0-9	---	---	7-17	1.35-1.60	2-6	0.10-0.14	0.0-2.9	0.5-2.0	.24
	9-45	---	---	18-35	1.35-1.60	0.6-2	0.12-0.20	0.0-2.9	0.1-0.5	.28
	45-84	---	---	4-20	1.40-1.70	2-20	0.05-0.10	0.0-2.9	0.1-0.5	.24
DgB: Dogue-----	0-7	---	---	5-10	1.35-1.50	2-6	0.08-0.15	0.0-2.9	0.5-2.0	.28
	7-50	---	---	35-50	1.45-1.60	0.2-0.6	0.12-0.19	3.0-5.9	0.0-0.5	.28
	50-83	---	---	5-30	1.30-1.50	0.6-6	0.05-0.14	0.0-2.9	0.0-0.5	.17
FnA: Fluvaquents, ponded-	0-7	---	---	2-18	1.25-1.35	0.6-2	0.10-0.15	0.0-2.9	3.0-10	.37
	7-80	---	---	15-45	1.35-1.60	0.06-0.2	0.10-0.20	0.0-2.9	0.5-1.0	.37
FSA: Freest-----	0-12	---	---	3-10	1.40-1.50	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	12-31	---	---	10-30	1.40-1.50	0.2-0.6	0.15-0.18	3.0-5.9	0.1-0.5	.32
	31-81	---	---	27-50	1.40-1.55	0.06-0.2	0.15-0.18	6.0-8.9	0.1-0.2	.28
FSB: Freest-----	0-12	---	---	3-10	1.40-1.50	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	12-31	---	---	10-30	1.40-1.50	0.2-0.6	0.15-0.18	3.0-5.9	0.1-0.5	.32
	31-81	---	---	27-50	1.40-1.55	0.06-0.2	0.15-0.18	6.0-8.9	0.1-0.2	.28
FSC: Freest-----	0-12	---	---	3-10	1.40-1.50	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	12-31	---	---	10-30	1.40-1.50	0.2-0.6	0.15-0.18	3.0-5.9	0.1-0.5	.32
	31-81	---	---	27-50	1.40-1.55	0.06-0.2	0.15-0.18	6.0-8.9	0.1-0.2	.28
HaA: Harleston-----	0-13	---	---	2-15	1.25-1.35	0.6-6	0.08-0.16	0.0-2.9	0.5-3.0	.20
	13-68	---	---	8-18	1.55-1.65	0.6-2	0.13-0.16	0.0-2.9	0.1-0.5	.32
	68-90	---	---	8-33	1.55-1.65	0.6-2	0.13-0.16	0.0-2.9	0.1-0.2	.32

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
HeD: Heidel-----	0-6	---	---	1-10	1.30-1.70	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.20
	6-10	---	---	7-15	1.30-1.70	0.6-2	0.10-0.15	0.0-2.9	0.1-0.2	.20
	10-33	---	---	10-18	1.40-1.70	0.6-2	0.10-0.15	0.0-2.9	0.0-0.1	.20
	33-80	---	---	5-15	---	2-6	0.07-0.11	0.0-2.9	0.0-0.1	.17
HeE: Heidel-----	0-6	---	---	1-10	1.30-1.70	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.20
	6-10	---	---	7-15	1.30-1.70	0.6-2	0.10-0.15	0.0-2.9	0.1-0.2	.20
	10-33	---	---	10-18	1.40-1.70	0.6-2	0.10-0.15	0.0-2.9	0.0-0.1	.20
	33-80	---	---	5-15	---	2-6	0.07-0.11	0.0-2.9	0.0-0.1	.17
ICB: Ichusa-----	0-2	---	---	28-32	1.30-1.45	0.06-0.2	0.20-0.22	3.0-5.9	0.5-2.0	.32
	2-11	---	---	36-60	1.37-1.41	0.06-0.2	0.20-0.22	6.0-8.9	0.1-0.5	.32
	11-85	---	---	40-60	1.57-1.60	0.00-0.06	0.18-0.20	9.0-25.0	0.1-0.2	.32
IRB: Irvington-----	0-13	---	---	5-19	1.30-1.50	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	13-19	---	---	18-35	1.35-1.60	0.6-2	0.12-0.18	0.0-2.9	0.1-0.6	.28
	19-76	---	---	18-35	1.50-1.75	0.2-0.6	0.12-0.18	0.0-2.9	0.1-0.4	.28
	76-81	---	---	20-40	1.30-1.60	0.06-0.2	0.13-0.19	0.0-2.9	0.1-0.2	.24
JnB: Jena-----	0-6	---	---	10-20	1.30-1.70	0.6-2	0.12-0.20	0.0-2.9	0.5-2.0	.37
	6-45	---	---	10-18	1.30-1.70	0.6-2	0.10-0.20	0.0-2.9	0.5-1.0	.28
	45-81	---	---	3-14	1.35-1.65	2-6	0.08-0.14	0.0-2.9	0.0-0.5	.37
Una-----	0-2	---	---	12-40	1.30-1.50	0.06-0.2	0.12-0.18	0.0-2.9	1.0-3.0	.28
	2-81	---	---	35-60	1.50-1.60	0.00-0.06	0.18-0.21	6.0-8.9	0.1-0.5	.32
Mantachie-----	0-9	20-40	50-65	10-20	1.40-1.50	2-6	0.16-0.20	0.0-2.9	1.0-3.0	.28
	9-20	35-65	15-50	18-34	1.50-1.60	0.6-2	0.14-0.20	0.0-2.9	0.5-2.0	.28
	20-39	30-65	15-45	18-34	1.50-1.60	0.6-2	0.14-0.19	0.0-2.9	0.1-2.0	.28
	39-80	40-80	8-40	4-25	1.50-1.60	0.6-6	0.08-0.18	0.0-2.9	0.1-2.0	.37
IaA: Latonia-----	0-8	---	---	3-12	1.40-1.50	6-20	0.05-0.10	0.0-2.9	0.5-2.0	.17
	8-32	---	---	10-16	1.40-1.50	2-6	0.10-0.15	0.0-2.9	0.1-0.3	.20
	32-81	---	---	3-10	1.40-1.50	6-20	0.05-0.10	0.0-2.9	0.1-0.2	.17
LfA: Leaf-----	0-7	---	---	12-25	1.30-1.50	0.06-0.2	0.20-0.22	0.0-2.9	1.0-3.0	.32
	7-49	---	---	35-60	1.50-1.60	0.00-0.06	0.14-0.18	6.0-8.9	0.2-0.6	.32
	49-81	---	---	20-55	1.50-1.60	0.2-0.6	0.14-0.16	6.0-8.9	0.0-0.3	.32

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
LpA: Leeper-----	0-4	---	---	27-35	1.45-1.60	0.06-0.2	0.18-0.22	6.0-8.9	1.0-4.0	.32
	4-60	---	---	35-50	1.40-1.60	0.00-0.06	0.18-0.20	6.0-8.9	0.0-0.0	.32
LrD: Lorman-----	0-12	---	---	5-20	1.30-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.28
	12-73	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.4	.32
	73-81	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.2	.32
LrE: Lorman-----	0-12	---	---	5-20	1.30-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.28
	12-73	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.4	.32
	73-81	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.2	.32
LtD: Lorman-----	0-12	---	---	5-20	1.30-1.65	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.28
	12-73	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.4	.32
	73-81	---	---	35-55	1.20-1.50	0.00-0.06	0.16-0.20	9.0-25.0	0.1-0.2	.32
Petal-----	0-9	---	---	16-25	1.40-1.50	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	9-27	---	---	20-35	1.45-1.55	0.2-0.6	0.15-0.18	3.0-5.9	0.1-0.6	.32
	27-81	---	---	30-50	1.40-1.55	0.06-0.2	0.15-0.18	6.0-8.9	0.1-0.2	.32
LuA: Louin-----	0-3	---	---	30-50	1.40-1.50	0.6-2	0.18-0.20	3.0-5.9	1.0-4.0	.32
	3-11	---	---	40-60	1.30-1.50	0.00-0.06	0.14-0.18	9.0-25.0	0.1-0.5	.28
	11-81	---	---	40-60	1.50-1.55	0.00-0.06	0.14-0.18	9.0-25.0	0.1-0.2	.28
LvA: Lucedale-----	0-9	---	---	1-10	1.40-1.55	0.6-2	0.15-0.20	0.0-2.9	1.0-5.0	.24
	9-83	---	---	20-30	1.55-1.70	0.6-2	0.14-0.18	0.0-2.9	0.2-0.8	.24
MaA: Malbis-----	0-9	---	---	10-25	1.30-1.60	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.24
	9-29	---	---	18-33	1.30-1.70	0.6-2	0.12-0.20	0.0-2.9	0.1-0.6	.28
	29-68	---	---	20-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	0.1-0.4	.28
	68-82	---	---	20-35	1.45-1.70	0.2-0.6	0.06-0.12	0.0-2.9	0.1-0.2	.28
MaB: Malbis-----	0-9	---	---	10-25	1.30-1.60	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.24
	9-29	---	---	18-33	1.30-1.70	0.6-2	0.12-0.20	0.0-2.9	0.1-0.6	.28
	29-68	---	---	20-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	0.1-0.4	.28
	68-82	---	---	20-35	1.45-1.70	0.2-0.6	0.06-0.12	0.0-2.9	0.1-0.2	.28

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
MaC: Malbis-----	0-9	---	---	10-25	1.30-1.60	0.6-2	0.10-0.15	0.0-2.9	0.5-1.0	.24
	9-29	---	---	18-33	1.30-1.70	0.6-2	0.12-0.20	0.0-2.9	0.1-0.6	.28
	29-68	---	---	20-35	1.40-1.60	0.6-2	0.12-0.17	0.0-2.9	0.1-0.4	.28
	68-82	---	---	20-35	1.45-1.70	0.2-0.6	0.06-0.12	0.0-2.9	0.1-0.2	.28
MBE: Maubila-----	0-9	55-85	15-40	5-18	1.45-1.65	2-6	0.08-0.12	0.0-2.9	0.5-1.0	.24
	9-29	52-85	10-40	5-12	1.40-1.60	2-6	0.08-0.12	3.0-5.9	0.2-0.8	.24
	29-56	20-55	20-45	30-55	1.40-1.60	0.06-0.2	0.12-0.18	3.0-5.9	0.1-0.5	.32
	56-68	15-45	20-50	35-60	1.40-1.60	0.00-0.06	0.05-0.10	3.0-5.9	0.1-0.5	.32
Olla-----	68-82	15-45	20-50	35-60	1.40-1.60	0.00-0.06	0.05-0.10	3.0-5.9	0.1-0.2	.32
	0-4	75-85	8-20	4-10	1.30-1.65	2-6	0.08-0.13	0.0-2.9	1.0-3.5	.24
	4-13	70-85	8-25	4-15	1.30-1.50	2-6	0.06-0.12	0.0-2.9	0.5-1.5	.28
	13-22	35-65	10-35	20-40	1.30-1.50	0.2-2	0.10-0.16	0.0-2.9	0.2-1.0	.28
Rattlesnake Forks----	22-37	35-70	10-35	12-35	1.65-1.80	0.06-0.6	0.10-0.14	0.0-2.9	0.1-0.5	.24
	37-80	35-70	10-35	8-45	1.40-1.60	0.06-0.6	0.08-0.12	3.0-5.9	0.1-0.2	.32
	0-6	---	0-20	3-7	1.35-1.55	20-50	0.05-0.10	0.0-2.9	0.5-2.0	.24
	6-50	---	0-20	3-7	1.35-1.55	20-50	0.05-0.10	0.0-2.9	0.2-0.6	.24
MDA: McCrory-----	50-55	---	0-15	3-7	1.40-1.55	20-50	0.03-0.07	0.0-2.9	0.0-0.5	.10
	55-80	---	0-15	5-8	1.45-1.60	20-50	0.06-0.09	0.0-2.9	0.0-0.5	.10
	0-4	15-40	50-65	8-20	1.30-1.60	0.6-2	0.16-0.18	0.0-2.9	1.0-4.0	.24
	4-14	15-65	25-60	5-20	1.30-1.60	0.6-2	0.16-0.18	0.0-2.9	0.5-2.0	.24
Deerford-----	14-23	30-65	10-50	10-30	1.30-1.60	0.06-0.2	0.10-0.16	0.0-2.9	0.1-1.0	.32
	23-58	35-70	10-45	15-35	1.30-1.60	0.06-0.2	0.08-0.18	0.0-2.9	0.1-1.0	.32
	58-72	50-70	15-40	5-20	1.30-1.65	0.2-0.6	0.10-0.12	0.0-2.9	0.1-0.5	.24
	0-3	30-50	30-50	5-27	1.30-1.60	0.6-2	0.21-0.23	0.0-2.9	1.0-4.0	.28
MrA: McLaurin-----	3-10	55-75	15-40	3-16	1.30-1.60	0.6-2	0.20-0.22	0.0-2.9	0.5-2.0	.28
	10-35	25-70	15-45	15-35	1.30-1.60	0.06-0.2	0.08-0.18	0.0-2.9	0.1-1.0	.32
	35-49	25-65	15-45	10-35	1.30-1.60	0.06-0.2	0.08-0.18	0.0-2.9	0.1-0.5	.32
	49-80	35-70	10-40	10-30	1.30-1.65	0.2-0.6	0.03-0.12	0.0-2.9	0.1-0.5	.28
	0-6	---	---	5-10	1.40-1.60	0.6-2	0.12-0.15	0.0-2.9	1.0-3.0	.20
	6-32	---	---	10-18	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
	32-38	---	---	5-15	1.30-1.70	0.6-2	0.05-0.10	0.0-2.9	0.0-0.2	.20
	38-80	---	---	5-27	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.1	.20

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
MrB: McLaurin-----	0-6	---	---	5-10	1.40-1.60	0.6-2	0.12-0.15	0.0-2.9	1.0-3.0	.20
	6-32	---	---	10-18	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
	32-38	---	---	5-15	1.30-1.70	0.6-2	0.05-0.10	0.0-2.9	0.0-0.2	.20
	38-80	---	---	5-27	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.1	.20
MrC: McLaurin-----	0-6	---	---	5-10	1.40-1.60	0.6-2	0.12-0.15	0.0-2.9	1.0-3.0	.20
	6-32	---	---	10-18	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.5	.20
	32-38	---	---	5-15	1.30-1.70	0.6-2	0.05-0.10	0.0-2.9	0.0-0.2	.20
	38-80	---	---	5-27	1.40-1.60	0.6-2	0.10-0.15	0.0-2.9	0.0-0.1	.20
OmC: Olla-----	0-4	75-85	8-20	4-10	1.30-1.65	2-6	0.08-0.13	0.0-2.9	1.0-3.5	.24
	4-13	70-85	8-25	4-15	1.30-1.50	2-6	0.06-0.12	0.0-2.9	0.5-1.5	.28
	13-22	35-65	10-35	20-40	1.30-1.50	0.2-2	0.10-0.16	0.0-2.9	0.2-1.0	.28
	22-37	35-70	10-35	12-35	1.65-1.80	0.06-0.6	0.10-0.14	0.0-2.9	0.1-0.5	.24
	37-80	35-70	10-35	8-45	1.40-1.60	0.06-0.6	0.08-0.12	3.0-5.9	0.1-0.2	.32
	0-9	55-85	15-40	5-18	1.45-1.65	2-6	0.08-0.12	0.0-2.9	0.5-1.0	.24
PaA: Paxville, ponded----	9-29	52-85	10-40	5-12	1.40-1.60	2-6	0.08-0.12	3.0-5.9	0.2-0.8	.24
	29-56	20-55	20-45	30-55	1.40-1.60	0.06-0.2	0.12-0.18	3.0-5.9	0.1-0.5	.32
	56-68	15-45	20-50	35-60	1.40-1.60	0.00-0.06	0.05-0.10	3.0-5.9	0.1-0.5	.32
	68-82	15-45	20-50	35-60	1.40-1.60	0.00-0.06	0.05-0.10	3.0-5.9	0.1-0.2	.32
	0-15	---	---	12-27	1.30-1.60	0.6-2	0.16-0.24	0.0-2.9	2.0-20	.24
	15-34	---	---	18-35	1.30-1.50	0.2-2	0.12-0.20	0.0-2.9	0.0-2.0	.28
Pd: Pits-----	34-57	---	---	18-35	1.30-1.50	0.2-2	0.10-0.20	0.0-2.9	0.0-0.2	.24
	57-83	---	---	7-30	1.30-1.50	0.2-2	0.10-0.20	0.0-2.9	0.0-0.2	.17
	0-80	---	---	5-20	1.30-1.60	2-6	0.07-0.15	0.0-2.9	---	.24
	---	---	---	---	---	---	---	---	---	---
PeA: Prentiss-----	0-8	---	---	5-18	1.50-1.60	0.6-2	0.12-0.16	0.0-2.9	1.0-3.0	.28
	8-19	---	---	5-18	0.80-1.50	0.6-2	0.12-0.16	0.0-2.9	0.1-1.0	.37
	19-52	---	---	10-20	1.65-1.75	0.2-0.6	0.06-0.09	0.0-2.9	0.1-0.5	.24
	52-81	---	---	18-32	1.60-1.80	0.2-0.6	0.05-0.10	0.0-2.9	0.1-0.2	.24

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
PwD: Prim-----	0-7	25-45	18-45	15-39	1.20-1.35	0.6-2	0.09-0.11	3.0-5.9	1.0-5.0	.15
	7-15	30-70	18-45	15-30	1.20-1.35	0.6-2	0.03-0.05	3.0-5.9	1.0-2.0	.15
	15-80	---	---	---	---	0	---	---	---	---
Suggsville-----	0-4	15-40	15-40	40-60	1.10-1.40	0.06-0.2	0.12-0.16	6.0-8.9	1.0-5.0	.32
	4-11	5-25	15-40	60-80	1.00-1.30	0.06-0.2	0.12-0.16	9.0-25.0	0.5-2.0	.32
	11-42	2-20	10-40	60-87	1.00-1.30	0.00-0.06	0.12-0.16	9.0-25.0	0.1-1.0	.32
	42-80	---	---	---	---	0	---	---	---	---
Watsonia-----	0-4	15-35	15-35	40-60	1.10-1.40	0.06-0.2	0.12-0.16	6.0-8.9	1.0-5.0	.32
	4-15	3-30	15-50	40-80	1.00-1.40	0.00-0.06	0.12-0.16	6.0-8.9	0.5-2.0	.32
	15-17	5-30	15-50	40-70	1.00-1.40	0.00-0.06	0.12-0.16	6.0-8.9	0.1-1.0	.37
	17-80	---	---	---	---	0	---	---	---	---
PwF: Prim-----	0-7	25-45	18-45	15-39	1.20-1.35	0.6-2	0.09-0.11	3.0-5.9	1.0-5.0	.15
	7-15	30-70	18-45	15-30	1.20-1.35	0.6-2	0.03-0.05	3.0-5.9	1.0-2.0	.15
	15-80	---	---	---	---	0	---	---	---	---
Suggsville-----	0-4	15-40	15-40	40-60	1.10-1.40	0.06-0.2	0.12-0.16	6.0-8.9	1.0-5.0	.32
	4-11	5-25	15-40	60-80	1.00-1.30	0.06-0.2	0.12-0.16	9.0-25.0	0.5-2.0	.32
	11-42	2-20	10-40	60-87	1.00-1.30	0.00-0.06	0.12-0.16	9.0-25.0	0.1-1.0	.32
	42-80	---	---	---	---	0	---	---	---	---
Watsonia-----	0-4	15-35	15-35	40-60	1.10-1.40	0.06-0.2	0.12-0.16	6.0-8.9	1.0-5.0	.32
	4-15	3-30	15-50	40-80	1.00-1.40	0.00-0.06	0.12-0.16	6.0-8.9	0.5-2.0	.32
	15-17	5-30	15-50	40-70	1.00-1.40	0.00-0.06	0.12-0.16	6.0-8.9	0.1-1.0	.37
	17-80	---	---	---	---	0	---	---	---	---
QTA: Quitman-----	0-10	---	---	5-15	1.35-1.65	2-6	0.15-0.24	0.0-2.9	1.0-3.0	.28
	10-24	---	---	18-35	1.45-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
	24-80	---	---	18-35	1.45-1.70	0.2-0.6	0.11-0.17	0.0-2.9	0.0-0.2	.28
RuA: Ruston-----	0-8	---	---	2-20	1.30-1.70	0.6-2	0.09-0.16	0.0-2.9	0.5-3.0	.28
	8-23	---	---	18-35	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
	23-44	---	---	10-25	1.30-1.70	0.6-2	0.12-0.15	0.0-2.9	0.0-0.5	.28
	44-84	---	---	15-38	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
RuB: Ruston-----	0-8	---	---	2-20	1.30-1.70	0.6-2	0.09-0.16	0.0-2.9	0.5-3.0	.28
	8-23	---	---	18-35	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
	23-44	---	---	10-25	1.30-1.70	0.6-2	0.12-0.15	0.0-2.9	0.0-0.5	.28
	44-84	---	---	15-38	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
RuC: Ruston-----	0-8	---	---	2-20	1.30-1.70	0.6-2	0.09-0.16	0.0-2.9	0.5-3.0	.28
	8-23	---	---	18-35	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
	23-44	---	---	10-25	1.30-1.70	0.6-2	0.12-0.15	0.0-2.9	0.0-0.5	.28
	44-84	---	---	15-38	1.40-1.70	0.6-2	0.12-0.17	0.0-2.9	0.0-0.5	.28
SAA: Savannah-----	0-5	---	---	3-16	1.50-1.60	0.6-2	0.13-0.16	0.0-2.9	0.5-3.0	.24
	5-29	---	---	18-32	1.45-1.65	0.6-2	0.11-0.17	0.0-2.9	0.1-0.6	.28
	29-85	---	---	18-32	1.60-1.80	0.06-0.2	0.05-0.10	0.0-2.9	0.1-0.2	.24
SAB: Savannah-----	0-5	---	---	3-16	1.50-1.60	0.6-2	0.13-0.16	0.0-2.9	0.5-3.0	.24
	5-29	---	---	18-32	1.45-1.65	0.6-2	0.11-0.17	0.0-2.9	0.1-0.6	.28
	29-85	---	---	18-32	1.60-1.80	0.06-0.2	0.05-0.10	0.0-2.9	0.1-0.2	.24
SAC: Savannah-----	0-5	---	---	3-16	1.50-1.60	0.6-2	0.13-0.16	0.0-2.9	0.5-3.0	.24
	5-29	---	---	18-32	1.45-1.65	0.6-2	0.11-0.17	0.0-2.9	0.1-0.6	.28
	29-85	---	---	18-32	1.60-1.80	0.06-0.2	0.05-0.10	0.0-2.9	0.1-0.2	.24
ShB: Shubuta-----	0-7	---	---	5-20	1.40-1.60	0.6-2	0.20-0.22	0.0-2.9	0.5-2.0	.28
	7-57	---	---	30-55	1.40-1.50	0.2-0.6	0.16-0.20	3.0-5.9	0.2-0.8	.28
	57-65	---	---	14-55	1.40-1.55	0.2-0.6	0.16-0.20	3.0-5.9	0.0-0.5	.28
	65-80	35-85	5-40	5-48	1.35-1.65	0.6-2	0.10-0.18	3.0-5.9	0.0-0.5	.28
SmD: Smithdale-----	0-16	---	---	2-15	1.40-1.50	2-6	0.14-0.16	0.0-2.9	0.5-2.0	.28
	16-36	---	---	18-33	1.40-1.55	0.6-2	0.15-0.17	0.0-2.9	0.2-0.8	.24
	36-80	---	---	12-27	1.40-1.55	2-6	0.14-0.16	0.0-2.9	0.1-0.5	.28
SmE: Smithdale-----	0-16	---	---	2-15	1.40-1.50	2-6	0.14-0.16	0.0-2.9	0.5-2.0	.28
	16-36	---	---	18-33	1.40-1.55	0.6-2	0.15-0.17	0.0-2.9	0.2-0.8	.24
	36-80	---	---	12-27	1.40-1.55	2-6	0.14-0.16	0.0-2.9	0.1-0.5	.28
SoA: Stough-----	0-7	---	---	7-15	1.45-1.55	0.6-2	0.12-0.18	0.0-2.9	1.0-4.0	.37
	7-27	---	---	8-18	1.45-1.50	0.2-0.6	0.07-0.11	0.0-2.9	0.1-1.0	.37
	27-81	---	---	5-27	1.55-1.65	0.2-0.6	0.07-0.11	0.0-2.9	0.1-0.2	.37

Table 16.--Physical Soil Properties--Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion
	In	Pct	Pct	Pct	g/cc	In/hr	In/in	Pct	Pct	Kw
StC2: Sumter-----	0-5	---	---	28-40	1.30-1.60	0.06-2	0.12-0.17	3.0-5.9	2.0-5.0	.37
	5-27	---	---	35-57	1.15-1.55	0.06-2	0.12-0.17	6.0-8.9	0.0-0.0	.37
	27-80	---	---	---	---	0.00-0.01	0.00-0.00	0.0-0.0	0.0-0.0	---
Maytag-----	0-5	---	---	30-40	1.20-1.60	0.2-0.6	0.15-0.20	3.0-5.9	2.0-5.0	.32
	5-52	---	---	35-60	1.15-1.50	0.06-0.2	0.12-0.17	6.0-8.9	0.0-0.0	.32
	52-80	---	---	35-70	1.15-1.50	0.06-0.2	0.12-0.17	6.0-8.9	0.0-0.0	.32
Sub: Susquehanna-----	0-9	---	---	2-12	1.50-1.55	0.6-2	0.10-0.15	0.0-2.9	0.5-2.0	.28
	9-70	---	---	35-60	1.25-1.50	0.00-0.06	0.15-0.20	6.0-8.9	0.2-0.8	.32
TbA: Trebloc, ponded-----	0-15	---	---	12-27	1.30-1.50	0.6-2	0.16-0.20	0.0-2.9	1.0-3.0	.43
	15-39	---	---	20-40	1.45-1.55	0.2-0.6	0.14-0.18	3.0-5.9	0.1-0.5	.37
	39-65	---	---	27-65	1.45-1.55	0.2-0.6	0.15-0.20	3.0-5.9	0.0-0.3	.37
	65-83	---	---	5-20	1.45-1.55	0.6-2	0.04-0.19	3.0-5.9	0.1-0.3	.37
UaB: Una-----	0-9	---	---	12-40	1.30-1.50	0.06-0.2	0.12-0.18	0.0-2.9	1.0-3.0	.28
	9-72	---	---	35-60	1.50-1.60	0.00-0.06	0.18-0.21	6.0-8.9	0.1-0.5	.32
Urbo-----	0-8	---	---	28-55	1.45-1.55	0.06-0.2	0.18-0.20	3.0-5.9	1.0-3.0	.28
	8-73	---	---	35-55	1.45-1.55	0.00-0.06	0.18-0.20	3.0-5.9	0.0-1.0	.28
	73-84	---	---	30-65	1.45-1.55	0.00-0.06	0.18-0.20	3.0-5.9	0.0-0.2	.28
Wab: Wadley-----	0-6	---	---	1-5	1.35-1.65	6-20	0.02-0.06	0.0-2.9	0.5-1.0	.10
	6-80	---	---	3-35	1.55-1.65	0.6-2	0.10-0.13	0.0-2.9	0.0-0.5	.20
Wsd: Wadley-----	0-6	---	---	1-5	1.35-1.65	6-20	0.02-0.06	0.0-2.9	0.5-1.0	.10
	6-83	---	---	3-35	1.55-1.65	0.6-2	0.10-0.13	0.0-2.9	0.0-0.5	.20
Boykin-----	0-8	72-88	5-25	1-10	1.40-1.60	6-20	0.05-0.09	0.0-2.9	0.5-1.0	.10
	8-25	72-95	5-25	1-10	1.40-1.60	6-20	0.05-0.09	0.0-2.9	0.1-0.5	.10
	25-38	55-80	5-25	10-30	1.45-1.70	0.6-2	0.10-0.16	0.0-2.9	0.1-0.5	.28
	38-78	35-75	5-35	18-35	1.45-1.70	0.6-2	0.10-0.16	0.0-2.9	0.1-0.5	.28
Smithdale-----	0-16	65	27	2-15	1.40-1.50	14.11-42.34	0.14-0.16	0.0-2.9	0.5-2.0	.28
	16-36	56	18	18-33	1.40-1.55	4.23-14.11	0.15-0.17	0.0-2.9	0.2-0.8	.24
	36-80	64	19	12-27	1.40-1.55	14.11-42.34	0.14-0.16	0.0-2.9	0.1-0.5	.28

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties

[Absence of an entry indicates that data were not estimated]

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	Inches	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
<b>AgB:</b>								
Alaga-----	0-6	---	0.8-5.8	3.6-6.0	0	0	0	0
	6-80	---	0.2-3.4	3.6-6.0	0	0	0	0
<b>AnA:</b>								
Annemaine-----	0-7	3.6-7.2	---	4.5-6.5	0	0	0	0
	7-15	---	6.9-12	4.5-5.5	0	0	0	0
	15-39	---	6.9-14	4.5-5.5	0	0	0	0
	39-55	---	4.1-8.7	4.5-5.5	0	0	0	0
	55-81	---	1.0-6.1	4.5-5.5	0	0	0	0
<b>BeB:</b>								
Benndale-----	0-10	---	1.0-2.5	4.5-5.5	0	0	0	0
	10-70	---	1.9-3.9	4.5-5.5	0	0	0	0
	70-81	---	1.2-4.8	4.5-5.5	0	0	0	0
<b>BeC:</b>								
Benndale-----	0-10	---	1.0-2.5	4.5-5.5	0	0	0	0
	10-70	---	1.9-3.9	4.5-5.5	0	0	0	0
	70-81	---	1.2-4.8	4.5-5.5	0	0	0	0
<b>BeD:</b>								
Benndale-----	0-10	---	1.0-2.5	4.5-5.5	0	0	0	0
	10-70	---	1.9-3.9	4.5-5.5	0	0	0	0
	70-81	---	1.2-4.8	4.5-5.5	0	0	0	0
<b>BkA:</b>								
Bibb-----	0-13	---	4.0-7.0	3.6-5.5	0	0	0	0
	13-42	---	4.0-10	3.6-5.5	0	0	0	0
	42-74	---	1.0-4.0	3.6-5.5	0	0	0	0
	74-81	---	1.0-4.0	3.6-5.5	0	0	0	0
<b>Iuka-----</b>	0-8	---	1.3-4.6	4.5-5.5	0	0	0	0
	8-24	---	1.9-6.2	4.5-5.3	0	0	0	0
	24-55	---	1.2-5.0	4.5-5.3	0	0	0	0
	55-81	---	0.0-2.8	4.5-5.3	0	0	0	0
<b>BmB:</b>								
Bigbee-----	0-8	---	0.8-6.7	3.6-6.0	0	0	0	0
	8-94	---	0.2-3.4	3.6-6.0	0	0	0	0
<b>BoB2:</b>								
Boswell-----	0-8	---	---	4.5-5.5	0	0	0	0
	8-85	---	---	4.5-5.5	0	0	0	0
<b>BoC2:</b>								
Boswell-----	0-8	---	---	4.5-5.5	0	0	0	0
	8-83	---	---	4.5-5.5	0	0	0	0
<b>BsE2:</b>								
Boykin-----	0-8	---	0.2-2.9	4.5-6.5	0	0	0	0
	8-25	---	0.2-5.5	4.5-6.5	0	0	0	0
	25-38	---	3.5-10	4.5-6.0	0	0	0	0
	38-78	---	10-20	4.5-6.0	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	Inches	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
<b>BsE2:</b>								
Luverne-----	0-7	---	1.2-3.9	4.5-5.5	0	0	0	0
	7-36	---	8.4-12	4.5-5.5	0	0	0	0
	36-49	---	4.7-9.7	4.5-5.5	0	0	0	0
	49-80	---	2.3-8.4	4.5-5.5	0	0	0	0
Smithdale-----	0-16	---	---	4.5-5.5	0	0	0	0
	16-36	---	---	4.5-5.5	0	0	0	0
	36-80	---	---	4.5-5.5	0	0	0	0
<b>BtD2:</b>								
Brantley-----	0-6	5.0-15	---	4.5-5.5	0	0	0	0
	6-55	---	6.3-18	4.5-5.5	0	0	0	0
	55-90	---	5.0-25	4.5-5.5	0	0	0	0
Okeelala-----	0-4	---	1.2-2.9	4.5-5.5	0	0	0	0
	4-55	---	3.5-7.9	4.5-5.5	0	0	0	0
	55-81	---	0.4-3.9	4.5-5.5	0	0	0	0
<b>BtE2:</b>								
Okeelala-----	0-4	---	1.2-2.9	4.5-5.5	0	0	0	0
	4-55	---	3.5-7.9	4.5-5.5	0	0	0	0
	55-81	---	0.4-3.9	4.5-5.5	0	0	0	0
Brantley-----	0-6	5.0-15	---	4.5-5.5	0	0	0	0
	6-55	---	6.3-18	4.5-5.5	0	0	0	0
	55-90	---	5.0-25	4.5-5.5	0	0	0	0
<b>BtG2:</b>								
Okeelala-----	0-4	---	1.2-2.9	4.5-5.5	0	0	0	0
	4-55	---	3.5-7.9	4.5-5.5	0	0	0	0
	55-81	---	0.4-3.9	4.5-5.5	0	0	0	0
Brantley-----	0-6	5.0-15	---	4.5-5.5	0	0	0	0
	6-55	---	6.3-18	4.5-5.5	0	0	0	0
	55-90	---	5.0-25	4.5-5.5	0	0	0	0
<b>CaA:</b>								
Cahaba-----	0-9	---	1.2-3.3	4.5-6.0	0	0	0	0
	9-45	---	3.5-7.9	4.5-5.5	0	0	0	0
	45-84	---	0.7-4.4	4.5-5.5	0	0	0	0
<b>CaB:</b>								
Cahaba-----	0-9	---	1.2-3.3	4.5-6.0	0	0	0	0
	9-45	---	3.5-7.9	4.5-5.5	0	0	0	0
	45-84	---	0.7-4.4	4.5-5.5	0	0	0	0
<b>DgB:</b>								
Dogue-----	0-7	---	2.0-6.0	3.5-5.5	0	0	0	0
	7-50	---	8.0-20	3.5-5.5	0	0	0	0
	50-83	---	0.9-7.2	3.5-5.5	0	0	0	0
<b>FnA:</b>								
Fluvaquents, ponded--	0-7	---	1.6-15	3.6-5.5	0	0	0	0
	7-80	---	4.0-13	3.6-5.5	0	0	0	0
<b>FsA:</b>								
Freest-----	0-12	---	0.6-2.9	4.5-5.5	0	0	0	0
	12-31	---	2.9-13	4.5-6.0	0	0	0	0
	31-81	14-26	---	4.5-7.3	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>Inches</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
<b>FsB:</b>								
Freest-----	0-12	---	0.6-2.9	4.5-5.5	0	0	0	0
	12-31	---	2.9-13	4.5-6.0	0	0	0	0
	31-81	14-26	---	4.5-7.3	0	0	0	0
<b>FsC:</b>								
Freest-----	0-12	---	0.6-2.9	4.5-5.5	0	0	0	0
	12-31	---	2.9-13	4.5-6.0	0	0	0	0
	31-81	14-26	---	4.5-7.3	0	0	0	0
<b>HaA:</b>								
Harleston-----	0-13	---	0.3-2.6	3.6-5.5	0	0	0	0
	13-68	---	1.5-3.9	4.5-5.5	0	0	0	0
	68-90	---	1.6-7.5	4.5-5.5	0	0	0	0
<b>HeD:</b>								
Heidel-----	0-6	---	---	4.5-5.5	0	0	0	0
	6-10	---	---	4.5-5.5	0	0	0	0
	10-33	---	---	4.5-5.5	0	0	0	0
	33-80	---	---	4.5-5.0	0	0	0	0
<b>HeE:</b>								
Heidel-----	0-6	---	---	4.5-5.5	0	0	0	0
	6-10	---	---	4.5-5.5	0	0	0	0
	10-33	---	---	4.5-5.5	0	0	0	0
	33-80	---	---	4.5-5.0	0	0	0	0
<b>IcB:</b>								
Ichusa-----	0-2	---	12-21	3.6-6.0	0	0	0	0
	2-11	25-42	---	3.6-8.4	0	0	0	0
	11-85	27-40	---	5.1-8.4	0	0	0	0
<b>IrB:</b>								
Irvington-----	0-13	---	---	4.5-6.5	0	0	0	0
	13-19	---	---	4.5-5.5	0	0	0	0
	19-76	---	---	4.5-5.5	0	0	0	0
	76-81	---	---	4.5-5.5	0	0	0	0
<b>JnB:</b>								
Jena-----	0-6	---	4.0-10	4.5-6.0	0	0	0	0
	6-45	---	4.0-15	4.5-5.5	0	0	0	0
	45-81	---	1.0-10	4.5-6.0	0	0	0	0
<b>Una-----</b>	0-2	---	2.9-5.9	3.6-5.5	0	0	0	0
	2-81	---	12-30	3.6-5.5	0	0	0	0
<b>Mantachie-----</b>	0-9	---	2.7-5.2	4.5-5.5	0	0	0	0
	9-20	---	6.2-11	4.5-5.5	0	0	0	0
	20-39	---	6.9-12	4.5-5.5	0	0	0	0
	39-80	---	1.3-9.0	4.5-5.5	0	0	0	0
<b>LaA:</b>								
Latonia-----	0-8	---	0.5-2.3	4.5-5.5	0	0	0	0
	8-32	---	1.9-3.5	4.5-5.5	0	0	0	0
	32-81	---	0.6-2.1	4.5-5.5	0	0	0	0
<b>LfA:</b>								
Leaf-----	0-7	---	2.9-7.7	3.6-5.5	0	0	0	0
	7-49	---	12-25	3.6-5.5	0	0	0	0
	49-81	---	6.7-30	3.6-5.5	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>Inches</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
LpA:								
Leeper-----	0-4	18-36	---	6.1-8.4	0-5	0	0	0
	4-60	6.0-8.1	---	6.1-8.4	0-5	0	0	0
LrD:								
Lorman-----	0-12	3.7-13	---	4.5-6.5	0	0	0	0
	12-73	8.5-25	---	4.5-7.8	0	0	0	0
	73-81	24-38	---	4.5-7.8	0	0	0	0
LrE:								
Lorman-----	0-12	3.7-13	---	4.5-6.5	0	0	0	0
	12-73	8.5-25	---	4.5-7.8	0	0	0	0
	73-81	24-38	---	4.5-7.8	0	0	0	0
LtD:								
Lorman-----	0-12	3.7-13	---	4.5-6.5	0	0	0	0
	12-73	8.5-25	---	4.5-7.8	0	0	0	0
	73-81	24-38	---	4.5-7.8	0	0	0	0
Petal-----	0-9	---	4.2-8.3	4.5-5.5	0	0	0	0
	9-27	---	6.3-16	4.5-5.5	0	0	0	0
	27-81	---	11-24	4.5-5.5	0	0	0	0
LuA:								
Louin-----	0-3	---	5.3-24	4.5-5.5	0	0	0	0
	3-11	---	20-36	4.5-5.5	0	0	0	0
	11-81	27-40	---	5.6-7.8	0	0	0	0
LvA:								
Lucedale-----	0-9	0.2-2.0	---	5.1-6.5	0	0	0	0
	9-83	---	---	4.5-5.5	0	0	0	0
MaA:								
Malbis-----	0-9	---	---	4.5-6.0	0	0	0	0
	9-29	---	---	4.5-5.5	0	0	0	0
	29-68	---	---	4.5-5.5	0	0	0	0
	68-82	---	---	4.5-5.5	0	0	0	0
MaB:								
Malbis-----	0-9	---	---	4.5-6.0	0	0	0	0
	9-29	---	---	4.5-5.5	0	0	0	0
	29-68	---	---	4.5-5.5	0	0	0	0
	68-82	---	---	4.5-5.5	0	0	0	0
MaC:								
Malbis-----	0-9	---	---	4.5-6.0	0	0	0	0
	9-29	---	---	4.5-5.5	0	0	0	0
	29-68	---	---	4.5-5.5	0	0	0	0
	68-82	---	---	4.5-5.5	0	0	0	0
MbE:								
Maubila-----	0-9	---	1.0-5.0	3.6-5.5	0	0	0	0
	9-29	---	1.2-7.7	3.6-5.5	0	0	0	0
	29-56	---	4.3-8.0	3.6-5.5	0	0	0	0
	56-68	---	4.8-9.8	3.6-5.5	0	0	0	0
	68-82	---	4.8-8.8	3.6-5.5	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	Inches	meq/100 g	meq/100 g	pH	Pct	Pct	mmhos/cm	
<b>MbE:</b>								
Olla-----	0-4	---	2.0-8.0	3.5-5.5	0	0	0	0
	4-13	---	2.0-10	3.5-5.5	0	0	0	0
	13-22	---	2.0-10	3.5-5.5	0	0	0	0
	22-37	---	2.0-8.0	3.5-5.5	0	0	0	0
	37-80	---	2.0-8.8	3.6-5.5	0	0	0	0
<b>Rattlesnake Forks----</b>	0-6	---	1.1-3.7	4.5-6.0	0	0	0.0-2.0	0-4
	6-50	---	0.8-2.3	4.5-6.0	0	0	0.0-2.0	0-4
	50-55	---	0.1-3.2	4.5-6.0	0	0	0.0-2.0	0-4
	55-80	---	0.4-2.4	4.5-6.0	0	0	0.0-2.0	0-4
<b>MdA:</b>								
McCrory-----	0-4	---	1.8-5.9	3.5-5.5	0	0	0	0
	4-14	---	2.9-19	4.5-6.5	0	0	0	0
	14-23	5.4-16	---	5.1-7.8	0	0	0	2-15
	23-58	5.0-20	---	6.6-9.0	0	0	0	13-20
	58-72	5.0-15	---	7.4-10.0	0	0	0	13-20
<b>Deerford-----</b>	0-3	---	3.0-15	3.5-5.5	0	0	0	0
	3-10	---	1.4-11	4.5-5.5	0	0	0	0
	10-35	12-27	---	5.1-8.4	0	0	0	2-15
	35-49	5.0-25	---	6.1-8.4	0	0	0	13-20
	49-80	5.0-25	---	6.6-8.4	0	0	0	13-20
<b>MrA:</b>								
McLaurin-----	0-6	---	---	4.5-5.5	0	0	0	0
	6-32	---	---	4.5-5.5	0	0	0	0
	32-38	---	---	4.5-5.5	0	0	0	0
	38-80	---	---	4.5-5.5	0	0	0	0
<b>MrB:</b>								
McLaurin-----	0-6	---	---	4.5-5.5	0	0	0	0
	6-32	---	---	4.5-5.5	0	0	0	0
	32-38	---	---	4.5-5.5	0	0	0	0
	38-80	---	---	4.5-5.5	0	0	0	0
<b>MrC:</b>								
McLaurin-----	0-6	---	---	4.5-5.5	0	0	0	0
	6-32	---	---	4.5-5.5	0	0	0	0
	32-38	---	---	4.5-5.5	0	0	0	0
	38-80	---	---	4.5-5.5	0	0	0	0
<b>OmC:</b>								
Olla-----	0-4	---	2.0-8.0	3.5-5.5	0	0	0	0
	4-13	---	2.0-10	3.5-5.5	0	0	0	0
	13-22	---	2.0-10	3.5-5.5	0	0	0	0
	22-37	---	2.0-8.0	3.5-5.5	0	0	0	0
	37-80	---	2.0-8.8	3.6-5.5	0	0	0	0
<b>Maubila-----</b>	0-9	---	1.0-5.0	3.6-5.5	0	0	0	0
	9-29	---	1.2-7.7	3.6-5.5	0	0	0	0
	29-56	---	4.3-8.0	3.6-5.5	0	0	0	0
	56-68	---	4.8-9.8	3.6-5.5	0	0	0	0
	68-82	---	4.8-8.8	3.6-5.5	0	0	0	0
<b>PaA:</b>								
Paxville, ponded-----	0-15	---	0.4-4.5	4.5-6.0	0	0	0	0
	15-34	---	3.2-8.4	4.0-5.5	0	0	0	0
	34-57	---	3.6-8.4	4.0-5.5	0	0	0	0
	57-83	---	1.3-4.2	4.0-5.5	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>Inches</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
Pd: Pits-----	0-80	---	---	4.5-5.5	0	0	0	0
Udorthents.								
PeA: Prentiss-----	0-8	---	0.8-3.3	4.5-5.5	0	0	0	0
	8-19	---	0.9-3.9	4.5-5.5	0	0	0	0
	19-52	---	1.9-4.4	4.5-5.5	0	0	0	0
	52-81	---	3.6-7.2	4.3-5.0	0	0	0	0
PwD: Prim-----	0-7	18-38	---	7.4-8.4	25-60	0	0	0
	7-15	11-24	---	7.4-8.4	45-70	0	0	0
	15-80	---	---	---	---	---	---	---
Suggsville-----	0-4	---	20-36	4.5-5.5	0	0	0	0
	4-11	---	23-47	3.5-5.5	0-5	0	0	0
	11-42	---	23-60	3.5-6.5	0-5	0	0	0
	42-80	---	---	---	---	---	---	---
Watsonia-----	0-4	32-62	---	4.5-6.5	0-5	0	0	0
	4-15	20-58	---	4.5-6.5	0-5	0	0	0
	15-17	20-42	---	6.1-8.4	15-60	0	0	0
	17-80	---	---	---	---	---	---	---
PwF: Prim-----	0-7	18-38	---	7.4-8.4	25-60	0	0	0
	7-15	11-24	---	7.4-8.4	45-70	0	0	0
	15-80	---	---	---	---	---	---	---
Suggsville-----	0-4	---	20-36	4.5-5.5	0	0	0	0
	4-11	---	23-47	3.5-5.5	0-5	0	0	0
	11-42	---	23-60	3.5-6.5	0-5	0	0	0
	42-80	---	---	---	---	---	---	---
Watsonia-----	0-4	32-62	---	4.5-6.5	0-5	0	0	0
	4-15	20-58	---	4.5-6.5	0-5	0	0	0
	15-17	20-42	---	6.1-8.4	15-60	0	0	0
	17-80	---	---	---	---	---	---	---
QtA: Quitman-----	0-10	---	0.8-2.7	4.5-5.5	0	0	0	0
	10-24	---	3.5-8.4	4.5-5.5	0	0	0	0
	24-80	---	3.6-8.4	4.5-5.5	0	0	0	0
RuA: Ruston-----	0-8	5.0-10	---	4.5-6.5	0	0	0	0
	8-23	---	10-30	4.5-6.0	0	0	0	0
	23-44	---	2.0-10	4.5-6.0	0	0	0	0
	44-84	---	10-30	4.5-6.0	0	0	0	0
RuB: Ruston-----	0-8	5.0-10	---	4.5-6.5	0	0	0	0
	8-23	---	10-30	4.5-6.0	0	0	0	0
	23-44	---	2.0-10	4.5-6.0	0	0	0	0
	44-84	---	10-30	4.5-6.0	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>Inches</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
<b>RuC:</b>								
Ruston-----	0-8	5.0-10	---	4.5-6.5	0	0	0	0
	8-23	---	10-30	4.5-6.0	0	0	0	0
	23-44	---	2.0-10	4.5-6.0	0	0	0	0
	44-84	---	10-30	4.5-6.0	0	0	0	0
<b>SaA:</b>								
Savannah-----	0-5	---	0.5-3.1	3.6-5.5	0	0	0	0
	5-29	---	3.4-7.2	3.6-5.5	0	0	0	0
	29-85	---	3.6-7.2	3.6-5.5	0	0	0	0
<b>SaB:</b>								
Savannah-----	0-5	---	0.5-3.1	3.6-5.5	0	0	0	0
	5-29	---	3.4-7.2	3.6-5.5	0	0	0	0
	29-85	---	3.6-7.2	3.6-5.5	0	0	0	0
<b>SaC:</b>								
Savannah-----	0-5	---	0.5-3.1	3.6-5.5	0	0	0	0
	5-29	---	3.4-7.2	3.6-5.5	0	0	0	0
	29-85	---	3.6-7.2	3.6-5.5	0	0	0	0
<b>ShB:</b>								
Shubuta-----	0-7	---	0.8-3.9	4.5-5.5	0	0	0	0
	7-57	---	6.8-12	4.5-5.5	0	0	0	0
	57-65	---	2.7-14	4.5-5.5	0	0	0	0
	65-80	---	0.9-12	4.5-5.5	0	0	0	0
<b>SmD:</b>								
Smithdale-----	0-16	---	---	4.5-5.5	0	0	0	0
	16-36	---	---	4.5-5.5	0	0	0	0
	36-80	---	---	4.5-5.5	0	0	0	0
<b>SmE:</b>								
Smithdale-----	0-16	---	---	4.5-5.5	0	0	0	0
	16-36	---	---	4.5-5.5	0	0	0	0
	36-80	---	---	4.5-5.5	0	0	0	0
<b>SoA:</b>								
Stough-----	0-7	---	1.1-2.7	4.5-5.5	0	0	0	0
	7-27	---	1.4-3.9	4.5-5.5	0	0	0	0
	27-81	---	1.0-6.0	4.5-5.5	0	0	0	0
<b>StC2:</b>								
Sumter-----	0-5	23-38	---	7.4-8.4	25-60	0	0	0
	5-27	8.2-12	---	7.4-8.4	40-65	0	0	0
	27-80	---	---	7.4-8.4	35-80	0	0	0
<b>Maytag-----</b>	0-5	25-44	---	6.6-8.4	25-60	0	0	0
	5-52	6.0-9.5	---	7.4-8.4	40-65	0	0	0
	52-80	6.0-11	---	7.4-8.4	35-80	0	0	0
<b>SuB:</b>								
Susquehanna-----	0-9	---	1.1-7.6	4.5-5.5	0	0	0	0
	9-70	---	18-36	4.5-5.5	0	0	0	0
<b>TbA:</b>								
Trebloc, ponded-----	0-15	---	2.0-5.1	4.5-5.5	0	0	0	0
	15-39	---	3.9-8.8	4.5-5.5	0	0	0	0
	39-65	---	5.4-16	4.5-5.5	0	0	0	0
	65-83	---	0.9-4.4	4.5-5.5	0	0	0	0

# Soil Survey of Wayne County, Mississippi

Table 17.--Chemical Soil Properties--Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<i>Inches</i>	<i>meq/100 g</i>	<i>meq/100 g</i>	<i>pH</i>	<i>Pct</i>	<i>Pct</i>	<i>mmhos/cm</i>	
UaB:								
Una-----	0-9	---	2.9-5.9	3.6-5.5	0	0	0	0
	9-72	---	12-30	3.6-5.5	0	0	0	0
Urbo-----	0-8	---	7.7-19	4.5-5.5	0	0	0	0
	8-73	---	11-30	4.5-5.5	0	0	0	0
	73-84	---	11-37	3.5-5.5	0	0	0	0
WaB:								
Wadley-----	0-6	---	---	4.5-6.0	0	0	0.0-2.0	0
	6-80	---	---	4.5-6.0	0	0	0.0-2.0	0
Wsd:								
Wadley-----	0-6	---	---	4.5-6.0	0	0	0.0-2.0	0
	6-83	---	---	4.5-6.0	0	0	0.0-2.0	0
Boykin-----	0-8	---	0.2-2.9	4.5-6.5	0	0	0	0
	8-25	---	0.2-5.5	4.5-6.5	0	0	0	0
	25-38	---	3.5-10	4.5-6.0	0	0	0	0
	38-78	---	10-20	4.5-6.0	0	0	0	0
Smithdale-----	0-16	---	---	4.5-5.5	0	0	0	0
	16-36	---	---	4.5-5.5	0	0	0	0
	36-80	---	---	4.5-5.5	0	0	0	0

Table 18.--Water Features

[Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of flooding apply to the whole year rather than to individual months. Absence of an entry indicates that a concern or that data were not estimated]

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
AgB: Alaga-----	A	Very low	Jan-Dec	---	---	---	---	None
AnA: Annemaine-----	C	Very high	Jan-Apr May-Nov December	1.5-2.5 ---	>6.0 ---	---	---	None None None
BeB: Benndale-----	B	Low	Jan-Dec	---	---	---	---	None
BeC: Benndale-----	B	Medium	Jan-Dec	---	---	---	---	None
BeD: Benndale-----	B	Medium	Jan-Dec	---	---	---	---	None
BkA: Bibb-----	D	High	Jan-Feb March April May-Nov December	0.5-1.0 0.5-1.0 0.5-1.0 ---	>6.0 0.5-6.0 >6.0 ---	---	---	None None None None None
Iuka-----	C	Negligible	Jan-Apr May-Nov December	1.0-3.0 ---	>6.0 ---	---	---	None None None
BmB: Bigbee-----	A	Very low	Jan-Apr May Jun-Nov December	---	---	---	---	None None None None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
BoE2: Boswell-----	D	Medium	Jan-Dec	Ft	Ft	Ft			
				---	---	---	---	None	
BoC2: Boswell-----	D	High	Jan-Dec	---	---	---	---	None	
BoE2: Boykin-----	B	Low	Jan-Dec	---	---	---	---	None	
Luverne-----	C	High	Jan-Dec	---	---	---	---	None	
Smithdale-----	B	High	Jan-Dec	---	---	---	---	None	
BtD2: Brantley-----	C	High	Jan-Dec	---	---	---	---	None	
Okeelala-----	B	Medium	Jan-Dec	---	---	---	---	None	
BtE2: Okeelala-----	B	High	Jan-Dec	---	---	---	---	None	
Brantley-----	C	Very high	Jan-Dec	---	---	---	---	None	
BtG2: Okeelala-----	B	High	Jan-Dec	---	---	---	---	None	
Brantley-----	C	Very high	Jan-Dec	---	---	---	---	None	
CaA: Cahaba-----	B	Low	Jan-Dec	---	---	---	---	None	
CaB: Cahaba-----	B	Low	Jan-Dec	---	---	---	---	None	

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
DgB: Dogue-----	C	Low	Jan-Mar April May-Nov December	Ft 1.5-3.0	Ft >6.0	Ft ---	---	None None None None
FnA: Fluvaquents, ponded-----	D	Negligible	Jan-Mar April May-Jun July Aug-Nov December	0.0 0.0 0.0 ---	>6.0 >6.0 >6.0 ---	0.0-2.0 0.0-2.0 0.0-2.0 ---	Very long Long Long Brief ---	Frequent Frequent Frequent Frequent None Frequent
FsA: Freest-----	C	Medium	Jan-Apr May-Dec	1.5-2.5 ---	>6.0 ---	---	---	None None
FsB: Freest-----	C	Medium	Jan-Apr May-Dec	1.5-2.5 ---	>6.0 ---	---	---	None None
FsC: Freest-----	C	High	Jan-Apr May-Dec	1.5-2.5 ---	>6.0 ---	---	---	None None
HaA: Harleston-----	C	Low	Jan-Mar Apr-Nov December	2.0-3.0 ---	>6.0 ---	---	---	None None None
HeD: Heidel-----	B	Medium	Jan-Dec	---	---	---	---	None
HeE: Heidel-----	B	High	Jan-Dec	---	---	---	---	None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
IcB: Ichusa-----	D	Medium	Jan-Mar Apr-Dec	Ft	Ft	Ft		
				1.5-3.0	1.5-3.0	---	---	None
				---	---	---	---	None
IrB: Irvington-----	C	Very high	Jan-Apr May-Nov December	1.5-3.0	2.2-3.0	---	---	None
				---	---	---	---	None
				1.5-3.0	2.2-3.0	---	---	None
JnB: Jena-----	B	Low	Jan-May Jun-Sep October Nov-Dec	---	---	---	---	None
				---	---	---	---	None
				---	---	---	---	None
				---	---	---	---	None
Una-----	D	Very high	Jan-Apr May-Oct Jun-Oct November December	0.5-1.0	>6.0	---	---	None
				---	---	---	---	None
				---	---	---	---	None
				0.5-1.0	>6.0	---	---	None
				0.5-1.0	>6.0	---	---	None
Mantachie-----	C	Low	Jan-Apr December	1.0-1.5	>6.0	---	---	None
				1.0-1.5	>6.0	---	---	None
LaA: Latonia-----	B	Negligible	Jan-Dec	---	---	---	---	None
LfA: Leaf-----	D	Low	Jan-Mar April May Jun-Oct November December	0.5-1.5	>6.0	---	---	None
				0.5-1.5	>6.0	---	---	None
				0.5-1.5	>6.0	---	---	None
				---	---	---	---	None
				---	---	---	---	None
				0.5-1.5	>6.0	---	---	None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
LpA: Leeper-----	D	High	Jan-Apr December	Ft	Ft	Ft		
				1.0-1.1	1.9-2.0	---	---	None
				1.0-1.1	1.9-2.0	---	---	None
LrD: Lorman-----	D	High	Jan-Dec	---	---	---	---	None
LrE: Lorman-----	D	Very high	Jan-Dec	---	---	---	---	None
LtD: Lorman-----	D	High	Jan-Dec	---	---	---	---	None
Petal-----	C	Very high	Jan-Apr May-Dec	1.5-2.5	2.0-2.5	---	---	None
				---	---	---	---	None
LuA: Louin-----	D	Low	Jan-Apr May-Dec	1.5-3.0	1.5-3.0	---	---	None
				---	---	---	---	None
LvA: Lucedale-----	B	Negligible	Jan-Dec	---	---	---	---	None
MaA: Malbis-----	B	Negligible	Jan-Apr May-Nov December	2.5-4.0	2.5-4.0	---	---	None
				---	---	---	---	None
				2.5-4.0	2.5-4.0	---	---	None
MaB: Malbis-----	B	Low	Jan-Apr May-Nov December	2.5-4.0	2.5-4.0	---	---	None
				---	---	---	---	None
				2.5-4.0	2.5-4.0	---	---	None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table			Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	
MaC: Malbis-----	B	Medium	January Feb-Mar Apr-Nov December	Ft	Ft	Ft			
					2.5-3.9 2.5-4.0	---	---	None	
					2.5-4.0 2.5-4.0	---	---	None	
					---	---	---	None	
					2.5-4.0 2.5-4.0	---	---	None	
MbE: Maubila-----	C	Very high	Jan-Apr May-Dec		2.0-3.5 2.8-3.5	---	---	None	
					---	---	---	None	
Olla-----	C	High	Jan-Dec		---	---	---	None	
Rattlesnake Forks-----	C	Medium	Jan-Dec		---	---	---	---	
MdA: McCrory-----	D	Low	Jan-Apr December		0.5-1.0 0.7-1.0	---	---	None	
					0.5-1.0 0.7-1.0	---	---	None	
Deerford-----	D	Low	Jan-Apr December		0.5-1.5 1.0-1.5	---	---	None	
					0.5-1.5 1.0-1.5	---	---	None	
MrA: McLaurin-----	B	Low	Jan-Dec		---	---	---	None	
MrB: McLaurin-----	B	Low	Jan-Dec		---	---	---	None	
MrC: McLaurin-----	B	Medium	Jan-Dec		---	---	---	None	
OmC: Olla-----	C	High	Jan-Dec		---	---	---	None	
Maubila-----	C	Very high	Jan-Apr May-Dec		2.0-3.5 2.8-3.5	---	---	None	
					---	---	---	None	

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
PaA: Paxville, ponded-----	D	Negligible		<i>Ft</i>	<i>Ft</i>	<i>Ft</i>		
			Jan-Apr	0.0-1.0	>6.0	0.2-2.5	Very long	Frequent
			May-Jun	0.0-1.0	>6.0	0.2-2.5	Long	Occasional
			Jul-Oct	---	---	0.2-2.5	Long	Rare
			November	0.0-1.0	>6.0	0.2-2.5	Very long	Occasional
Pd: Pits-----	B	Medium	December	0.0-1.0	>6.0	0.2-2.5	Very long	Frequent
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
PeA: Prentiss-----	C	Low						
			Jan-Mar	2.0-2.5	2.0-2.5	---	---	None
			Apr-Dec	---	---	---	---	None
PwD: Prim-----	D	High						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
Suggsville-----	D	Very high						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
Watsonia-----	D	Very high						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
PwF: Prim-----	D	Very high						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
Suggsville-----	D	Very high						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
Watsonia-----	D	Very high						
			Jan-Dec	---	---	---	---	None
			Jan-Dec	---	---	---	---	None
QTA: Quitman-----	C	Low						
			Jan-Mar	1.5-2.0	1.5-2.0	---	---	None
			Apr-Dec	---	---	---	---	None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
RuA: Ruston-----	B	Negligible	Jan-Dec	<i>Ft</i>	<i>Ft</i>	<i>Ft</i>		
				---	---	---	---	None
RuB: Ruston-----	B	Low	Jan-Dec					
				---	---	---	---	None
RuC: Ruston-----	B	Medium	Jan-Dec					
				---	---	---	---	None
SaA: Savannah-----	C	Medium	Jan-Apr May-Nov December	1.5-3.0	1.5-3.0	---	---	None
				---	---	---	---	None
				1.5-3.0	1.5-3.0	---	---	None
SaB: Savannah-----	C	Medium	Jan-Apr May-Nov December	1.5-3.0	1.5-3.0	---	---	None
				---	---	---	---	None
				1.5-3.0	1.5-3.0	---	---	None
SaC: Savannah-----	C	High	Jan-Mar Apr-Dec	1.5-3.0	1.5-3.0	---	---	None
				---	---	---	---	None
ShB: Shubuta-----	C	Low	Jan-Dec					
				---	---	---	---	None
SmD: Smithdale-----	B	Medium	Jan-Dec					
				---	---	---	---	None
SmE: Smithdale-----	B	High	Jan-Dec					
				---	---	---	---	None
SoA: Stough-----	C	Low	Jan-Apr May-Dec	1.0-1.5	1.0-1.5	---	---	None
				---	---	---	---	None

Table 18.--Water Features--Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding		
				Upper limit	Lower limit	Surface water depth	Duration	Frequency
StC2: Sumter-----	C	High	Jan-Dec	Ft	Ft	Ft		
Maytag-----	D	High	Jan-Dec	---	---	---	---	None
SuB: Susquehanna-----	D	Medium	Jan-Dec	---	---	---	---	None
TbA: Trebloc, ponded-----	D	Negligible	Jan-Apr May June Jul-Oct November December	0.5-1.0	>6.0	0.2-2.0	Long	Frequent
UaB: Una-----	D	Negligible	Jan-Apr May-Oct November December	0.5-1.0	>6.0	0.0-2.0	Long	Frequent
Urbo-----	D	Very high	Jan-Apr May-Nov December	1.0-2.0	>6.0	---	---	None
WaB: Wadley-----	A	Low	Jan-Dec	---	---	---	---	None
Wsd: Wadley-----	A	Medium	Jan-Dec	---	---	---	---	None
Boykin-----	B	Low	Jan-Dec	---	---	---	---	None
Smithdale-----	B	Medium	Jan-Dec	---	---	---	---	None

# Soil Survey of Wayne County, Mississippi

Table 19.--Taxonomic Classification of the Soils

Soil name	Family or higher taxonomic class
Alaga-----	Thermic, coated Typic Quartzipsamments
Annemaine-----	Fine, mixed, semiactive, thermic Aquic Hapludults
Bennedale-----	Coarse-loamy, siliceous, semiactive, thermic Typic Paleudults
Bibb-----	Coarse-loamy, siliceous, active, acid, thermic Typic Fluvaquents
Bigbee-----	Thermic, coated Typic Quartzipsamments
Boswell-----	Fine, mixed, active, thermic Vertic Paleudalfs
Boykin-----	Loamy, siliceous, active, thermic Arenic Paleudults
Brantley-----	Fine, mixed, active, thermic Ultic Hapludalfs
Cahaba-----	Fine-loamy, siliceous, semiactive, thermic Typic Hapludults
Deerford-----	Fine-loamy, mixed, superactive, thermic Albic Glossic Natraqualfs
Dogue-----	Fine, mixed, semiactive, thermic Aquic Hapludults
Fluvaquents-----	Fluvaquents
Freest-----	Fine-loamy, siliceous, active, thermic Aquic Paleudalfs
Harleston-----	Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults
Heidel-----	Coarse-loamy, siliceous, subactive, thermic Typic Paleudults
Ichusa-----	Fine, smectitic, thermic Aquic Dystruderts
Irrington-----	Fine-loamy, siliceous, subactive, thermic Plinthic Fragiudults
Iuka-----	Coarse-loamy, siliceous, active, acid, thermic Aquic Udifluvents
Jena-----	Coarse-loamy, siliceous, active, thermic Fluventic Dystrudepts
Latonia-----	Coarse-loamy, siliceous, semiactive, thermic Typic Hapludults
Leaf-----	Fine, mixed, active, thermic Typic Albaquults
Leeper-----	Fine, smectitic, nonacid, thermic Vertic Epiaquepts
Lorman-----	Fine, smectitic, thermic Chromic Vertic Hapludalfs
Louin-----	Fine, smectitic, thermic Aquic Dystruderts
Lucedale-----	Fine-loamy, siliceous, subactive, thermic Rhodic Paleudults
Luverne-----	Fine, mixed, semiactive, thermic Typic Hapludults
Malbis-----	Fine-loamy, siliceous, subactive, thermic Plinthic Paleudults
Mantachie-----	Fine-loamy, siliceous, active, acid, thermic Fluventic Endoaquepts
Maubila-----	Fine, mixed, subactive, thermic Aquic Hapludults
Maytag-----	Fine, smectitic, thermic Oxyaquic Hapluderts
McCrory-----	Fine-loamy, mixed, active, thermic Albic Glossic Natraqualfs
McLaurin-----	Coarse-loamy, siliceous, subactive, thermic Typic Paleudults
Okeelala-----	Fine-loamy, siliceous, semiactive, thermic Ultic Hapludalfs
Olla-----	Fine-loamy, siliceous, active, thermic Typic Hapludults
Paxville-----	Fine-loamy, siliceous, semiactive, thermic Typic Umbraquults
Petal-----	Fine-loamy, siliceous, active, thermic Aquic Paleudalfs
Prentiss-----	Coarse-loamy, siliceous, semiactive, thermic Glossic Fragiudults
Prim-----	Loamy-skeletal, carbonatic, thermic, shallow Typic Haprendolls
Quitman-----	Fine-loamy, siliceous, semiactive, thermic Aquic Paleudults
Rattlesnake Forks-----	Thermic, coated Lamellic Quartzipsamments
Ruston-----	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults
Savannah-----	Fine-loamy, siliceous, semiactive, thermic Typic Fragiudults
Shubuta-----	Fine, mixed, semiactive, thermic Typic Paleudults
Smithdale-----	Fine-loamy, siliceous, subactive, thermic Typic Hapludults
Stough-----	Coarse-loamy, siliceous, semiactive, thermic Fragiaquic Paleudults
Suggsville-----	Very-fine, smectitic, thermic Chromic Dystruderts
Sumter-----	Fine-silty, carbonatic, thermic Rendollic Eutrudepts
Susquehanna-----	Fine, smectitic, thermic Vertic Paleudalfs
Trebloc-----	Fine-silty, siliceous, active, thermic Typic Paleaquults
Una-----	Fine, mixed, active, acid, thermic Typic Epiaquepts
Urbo-----	Fine, mixed, active, acid, thermic Vertic Epiaquepts
Wadley-----	Loamy, siliceous, subactive thermic Grossarenic Paleudults
Watsonia-----	Clayey, smectitic, thermic, shallow Leptic Hapluderts



# NRCS Accessibility Statement

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